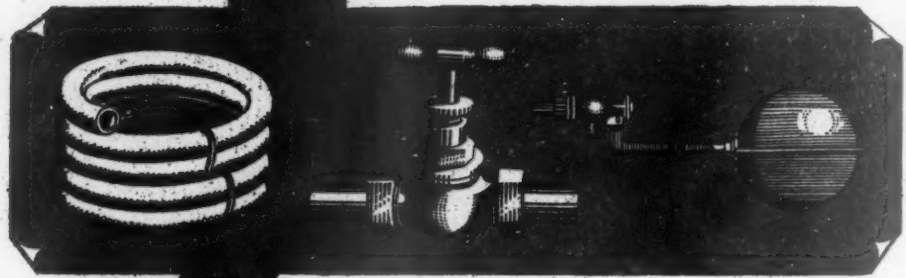




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## MARGINALIA

### Outrage and After

Reactions to the trumpet blast in the REVIEW's June issue have varied widely in the Press and elsewhere. To some journalist-readers, here was a nice talking-point; and in their articles they were concerned to point out the deleterious effects of passion upon reason and to show that the REVIEW had o'erflowed the measure in asserting the whole philosophy of urban dispersal to be wrong. . . . 'Existing small and middle-sized towns well placed for expansion—not new towns—will have to receive the required "overspill" from the big cities' (*The Times*). One may ask what it is exactly that makes a small or middle-sized town meet for the sacrifice or, as *The Times* puts it, well placed for expansion. Another and, from the REVIEW's point of view, more pleasing form of reaction was the chorus from the popular Press in Fleet Street, whose voices, if (as some said) the REVIEW's was high-pitched and querulous, were deep and reassuring. These splendid people made the cause their own; the *Daily Mail* and *News Chronicle* were magnificently profuse; although it is doubtful whether the few million clerks and others whose eyes actually fell on the appropriate pages were much interested or even amused, let alone concerned. For most of them, secure and relatively prosperous, their entry into the Kingdom of Subtopia has been the reward of loyalty and tedious exertion on behalf of a benevolent employer, and is a Pearl of great Price, more than a substitute for romance. Thus the bleating of a few frustrated intellectuals is for them hardly worthy of a half-smile of contempt; it means nothing. (Here we are back at the beginning—'a prophecy of doom' . . .) But we recognize that the support of a cause with so little to bait it for the public in the way of cheap sensationalism was an act of gallant disinterest, calling for our gratitude. The third principal type of reaction in the Press is limited to the provincial newspapers and, because it is the most personal, it is also, perhaps, the most powerful. 'There is to hand a local example of urban tentacles reaching out to the virgin countryside. . . . Reading's once green belt is slowly, but surely, disappearing' (*Berkshire Chronicle*). 'Towns should be urban and the country rural . . . there should be a term set to the no man's land of "Subtopia". That is the point the authors want to bring home . . . and is a problem which has long exercised concern at Bath' (*Bath & Wiltshire Chronicle & Courier*). 'We are, thank Heaven, still blessed with a fair slice of well-wooded countryside—now looking its best—but the "urban sprawl" is taking an increasingly heavy toll, and the Warwickshire of to-day is not that of ten or twenty years ago. The large airfields at Wellesbourne and Gaydon have in one swoop swal-

lowed up what was once peaceful farm land. . . . Industry has played an even more decisive part in the transformation. Not only does the overspill of Coventry's working population find homes in the villages, but smaller industrial units are set up in localities where alluring wage packets are held out to the unabsorbed farm labour force' (*Leamington Spa Courier*). These writers, especially the last, seem to feel intimately the threat to their own places. The rage and distress of a passing traveller, sincere though it may be, cannot quite equal the feelings of a sensitive man about the ground he has known since infancy, which he sees trampled out of recognition by Brobdingnagians of industry or government. The *Leamington Spa Courier* concludes: 'The answer depends on public opinion, which must be brought face to face with the urgent necessity for demanding imaginative and ruthless planning. A re-statement of policy at national level would do much to allay the fears of those who have deep feelings on this question.' Although un-rhetorical journalism of this kind may do more than anything to arouse local opinion, the *Courier* is right about the national re-statement of policy; and his animadversion has already been answered in the speech of Mr. Duncan Sandys, Minister of Housing and Local Government, to the RIBA on July 20, when he 'declared war on ugliness in every form.' He invoked the British people's heritage of 'historical monuments, pleasing cities and smiling landscapes,' which 'in the name of progress and convenience are everywhere being mutilated or obscured. Every . . . ferro-concrete lamp-post, advertisement hoarding, public convenience, bus shelter or traffic sign must be critically scrutinized. . . . In this connection, it is as well to remember that towns were built for people to live in and not merely as places to motor through.' (Our italics.) He adds that guarding against fresh enormities is not enough: 'I must emphatically urge local authorities in distributing funds they have allocated for amenities to earmark at least a small proportion for judicious demolitions.' At this point the REVIEW throws its laurels earned in the fray at Mr. Sandys' feet; we are now fighting his battle, not he ours.

It remains to be noted how effortless and meteoric the ascent of the word Subtopia has been into the empyrean of learned and respectable usage. The other day it was heard in public passing the lips of the Duke of Edinburgh himself. In *The Times* on July 11, we observed this passage in a letter to the Editor: ' . . . that the energy thereby saved be expended on resisting the encroachments of subtopia and tidying up . . . etc.' The remarkable thing here is surely not the sentiment expressed, which is admirable enough, but the fact that the word subtopia is begun with a small letter, and with no handle to excuse its novelty; surely the hallmark of acceptance. But the future lexicographer seeking literary authorities need look no further than the text of HRH's speech to the Royal College of Art. The *Birmingham Post* were good enough to describe the word as repulsive; and so it is. Let us hope that the word will become a conventional term of abuse in council rooms,

architects' offices and elsewhere, synonymous with many unrepeatable words which will at once spring to the reader's mind. The fact that *The Scotsman* has hurled it back at the REVIEW itself (which it regards as a Subtopian production) dismays but does not discourage us.

## CORRESPONDENCE

### Oxford Gas Works

To the Editors

SIRS,—At the end of the article on Oxford on page 404 of your June issue, it is said that 'the Oxford Gas Works was an appalling blunder of siting in the 1890s and remains so to-day—yet sixty years of it did not prevent the City from contemplating an extension after the war, and after the Oxford Plan had specifically recommended re-siting, which was only stopped with immense effort.' I have no doubt that, particularly in view of what preceded this statement, most of your readers will understand it as meaning that the extension of the Gas Works to the south of its existing site was a proposal of the City Council. In fact this proposal was that of the then Oxford and District Gas Company and, although at various times great assistance has been given by the University, the Oxford Preservation Trust and the House of Lords, my Council can, I think, claim to have been consistently the principal opponent of the proposed extension and can claim the greatest responsibility for the fact that work on the construction of the new Gas Works at a site in Cowley has now begun.

My Council cannot, of course, take exception to the various criticisms made of it in THE ARCHITECTURAL REVIEW on matters of opinion, but I am sure you will agree that false impressions should not be given of the facts.

Yours, etc.,

HARRY PLOWMAN.

Town Hall, Oxford.

Town Clerk.

[The Editors write: *The responsibility is shifted; the outrage remains. The relevant clause in the commentary should read . . . 'did not prevent the Oxford and District Gas Company from contemplating an extension.'* . . . The facts were obtained verbatim in Oxford, and we apologize for being misinformed. The Bayswater Estate in Headington, the beautified roundabouts and the bargeboarded hut in Broad Street are perhaps reasons why we are unwilling to extend our congratulations—and the houses by the canal (page 402, June AR) have gone already.]

### Outrage and Lamp Standards

To the Editors

SIRS,—I have read the contents of the June issue with growing admiration. The problem of lamp standards is very real, yet much of the criticism applied to concrete lamp standards can, just as easily, be applied to steel standards, so a change of materials does not seem to solve the problem. A car driver finds the light from lamp standards often more confusing than helpful owing to their closeness to his line of vision in perspective. Cars are capable of illuminating their own road area, and headlights serve as an added warning to careless pedestrians; many serious accidents are caused, or made worse, by collision with lamp standards. Pedestrians and pavements are people and things which require strong illumination.

After consideration of these points, it would seem advisable to eliminate lamp standards from roadside positions and set them back to the inner



side of the pavement, away from the curb, in non-built-up areas, and to eliminate them completely in built-up areas by designing suitable lighting fittings to be unobtrusively attached to the walls of buildings. In new buildings, the inclusion of street lights in the elevational design should form part of the initial problem.

Yours, etc.,

P. MICHAEL THOMAS.

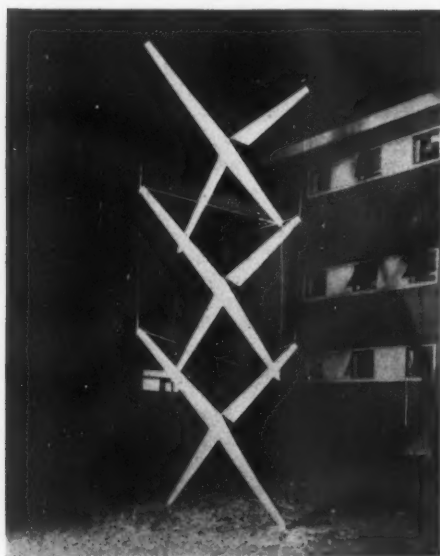
Swansea.

[The Editors write: The improvement can already be studied in one of the towns on the Outrage route—Chipping Norton—where the market place is studded with the clumsiest kind of concrete standard but the narrow road up to it has neat fluorescent fittings fixed to the buildings. The idea can obviously lend itself to abuse but on balance, one more excrescence on a Palladian front is better than the breaking up of a whole town centre.]

#### The Functions and Design of Hospitals

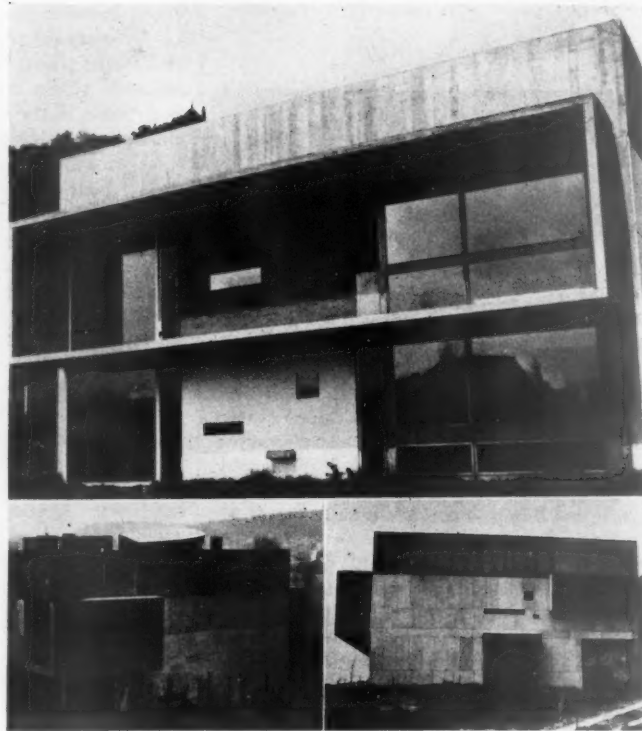
The long-awaited Report of the Nuffield Provincial Hospitals Trust\* is valuable not only on account of the considerable light it throws on hospital design but for its illumination of the social function of the architect. Among the subjects investigated by Richard Llewelyn Davies' team are: 'Why do outpatients have to wait so long?' 'How big an area should a hospital serve?' and 'What is the likely incidence of disease?'—questions which, one is inclined to say, 'have nothing to do with the architect.' Nor, if we are thinking of the day-to-day professional duties of the ordinary architect, have they. But the fact remains that what we mean by

\* "Studies in the Functions and Design of Hospitals" by the Nuffield Provincial Hospitals Trust. Oxford University Press. 63s.



**SUSPEGIC DUOFORM.** Playground sculpture for the grown mind, rather than the infant limb, is seen in this recent structural exercise in a quadrangle at Alabama Polytechnic Institute. However the name of the *Suspegic Duoform* was arrived at, the structural technique is clearly derived from Buckminster Fuller's 'discontinuous compression member' though the *Duoforms* suffer from bending moments which cannot occur in Fuller's triangulated members. Materials are wood, with strap-iron reinforcement, and  $\frac{1}{2}$ -inch cable for the tension members. A descriptive note from Alabama Polytechnic says: 'This structure moves and twists with the wind, but actually is very stable.'

**PETITE MAISON—STYLE CORBU:** One of the most startlingly apparent manifestations of a Style Corbu of the 'fifties, matching that of the late 'thirties, is this new house at St.-Rémy-les-Chevreuses. That it should bear the mark of the Master's influence so prominently is hardly surprising, when it is considered that it is the work of André Wogensky, currently acting as Le Corbusier's chef d'atelier, but inspection will show that unlike some earlier exponents of le Style Wogensky employs the idiom with a markedly personal accent—the 'randomization' of the windows in the central panels of the garden elevation, above, is quite unlike that of Ronchamp, both in meaning and purpose, and the use of rough and smooth textures, right, and of functional-sculptural elements like gargoyles and chimneys, left, is Wogensky's own.



architecture cannot happen unless someone investigates these questions; and of all our technical people only the architect has a sufficiently rounded vision and experience successfully to lead an investigation into them. The chapters of this book, even though they do no more in many cases than open the subjects they treat, represent the architect in this role of interpreter of our needs. To take as one instance the now celebrated study of the hospital ward—this has now progressed from the phase of interrogation—of doctors, nurses, patients, and every sort of expert—to the building of a prototype; so we are now on the way to a conception of the hospital ward which will comprehend all that we severally know. Though the facts presented in the volume are only the beginnings of a body of hospital design information, it is a special mercy that we have them now, before we begin hospital building in earnest: for it is terrifying to think of the mistakes we should be about to make had there been no Nuffield Foundation to investigate for us. The work recorded in this volume is an example of the kind of research architecture badly needs, and indeed on which modern architecture must be based if it is to be called functional. It is encouraging news that a similar team, again under Mr. Llewelyn Davies' leadership, is now investigating science laboratories and farm buildings.

#### Corrigendum

Mr. Alec Clifton-Taylor writes: 'In my review of Dr. Christopher Woodforde's "English Stained & Painted Glass" (ARCHITECTURAL REVIEW, August 1955, page 124) I suggested that the glass in the Jesse window at Dorchester Abbey belonged, like its sculpture, to the second quarter of the 14th century; here I was wrong. This window, which was considerably restored in 1926 contains only sixteen rather small figures, partly made up from

fragments, but the glass is undoubtedly of the 15th century. My apologies to Dr. Woodforde.'

#### Intelligence

Tretol Ltd. have announced an open competition to architects for 'The House for the Professional Man,' costing around £4,250 to build, a departure from the many past competitions for rigidly low-cost housing. Premiums amounting to £500 are offered for the three winning designs and all the entries will be displayed at the 1955 Building Exhibition at Olympia in November. Designs must be submitted to Tretol Ltd. 26 Store Street, WC1, not later than 8th November.

At the meeting in July of the IUA Congress at the Hague, it was resolved that the next meeting, in 1957, should be held in Moscow.

#### ACKNOWLEDGMENTS

MARGINALIA, page 212: Style Corbu', Robert Browning. FRONTISPIECE, page 214: G. E. Kidder-Smith. MAISON JAOLU, pages 149-150: James Stirling. SCHOOL AT PADDINGTON, pages 153-160: Drake and Lasdun, except 15, Brian Seed; 18, 19, Galwey, Arphot. PEEPSHOW, pages 161-164: 1, 5, Mansell Collection; 2, 6, 14-16, National Gallery; 3, 4, 20, Rijksmuseum, Amsterdam; 7, Fitzwilliam Museum; 9, 10, 12, 13, Jan Terwen; 11, Wallace Collection; 17, Lichtbeelden Instituut; 18, 19, A. Dingjan. COFFEE BARS, pages 169-173: Toomey, Arphot, except page 170, 6, S. Lambert, and page 172, 14, J. S. Pantlin. NORTH AFRICAN SCRAPBOOK, pages 174-185, G. E. Kidder-Smith. CURRENT ARCHITECTURE, pages 186-188: Dartford Technical College, Galwey; House at West Mersea, Toomey. MISCELLANY, pages 189-194: Exhibitions, 1, S. W. Newbery; 4, W. Churcher; Landscape, K. Browne, Arphot, except 7, *The Times*; 6, Sport and General; History, Galwey. INTERIORS, pages 195-198: Galwey, except 7, 12, 14-16, P. W. and L. Thompson. DESIGN REVIEW, pages 199-200: Primavera, Galwey; Crown, Toomey. TECHNICAL, pages 201-210: Arcon, S. W. Newbery.





## textures

### **HOTEL LEOFRIC COVENTRY**

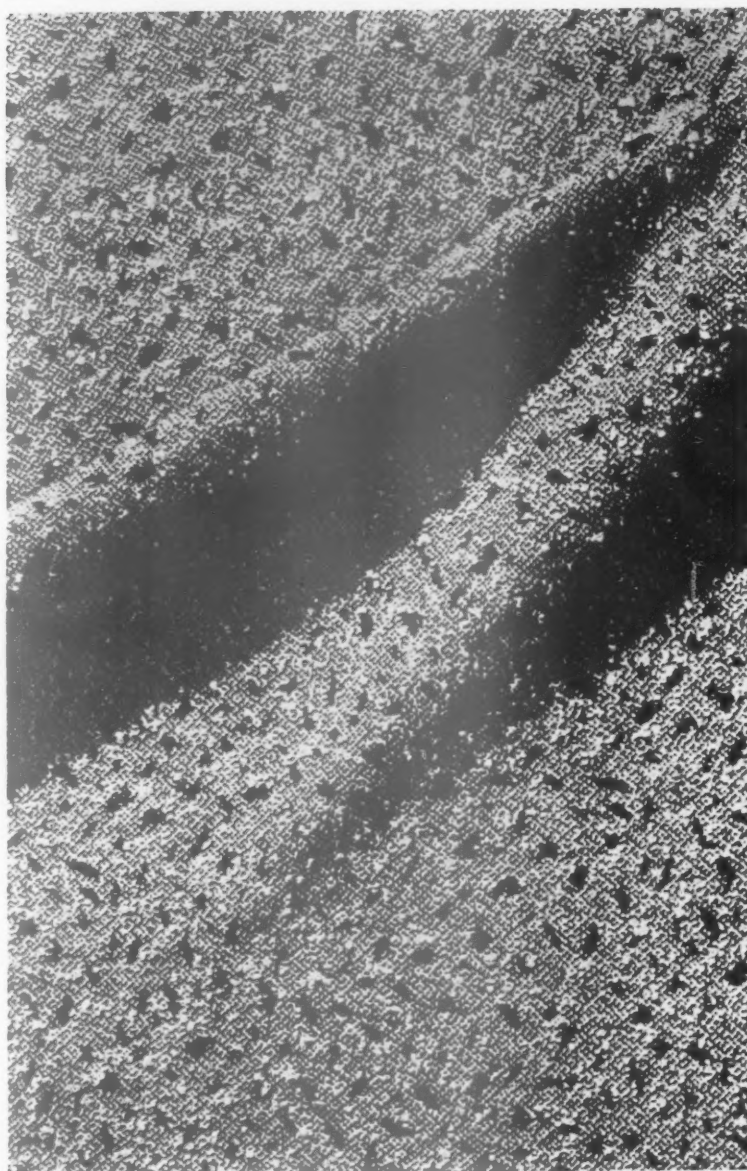
The Leofric, 108-bedroom hotel, was opened on April 28. Ind Coope and Allsopp state that the Hotel has cost about £800,000 to build and equip.

The deep textured furnishing fabrics which have been used for this new Hotel in Coventry were designed by Tibor Reich of Stratford-on-Avon. One of the fabrics used on chairs and settees in the lounge as well as on dressing table chairs, is the texture-drape "Granite" in Spruce and Black. The VIP Chairs in the bedrooms and on the landings are covered in "Wellington," a wool texture with a velvet-like appearance in Dark Green and Graphite, giving a feeling of luxury and comfort. The head cushions on the Buoyant VIP Chairs are in contrasting flame "Henley," a 100% cotton boucle cloth, which also covers the dressing table chairs. The VIP chairs and settees in the Penthouses are upholstered in "Henley" Persimmon and Sprout. A new Tibor design "Tiara" in an exciting colour of midnight purple with Lurex non-tarnishing metallic thread interwoven attracts the attention in the Penthouses. The curtains of black "Cymbeline" with a white spot interwoven with a sparkle of Lurex give the ballroom a luxurious atmosphere.

The fabric illustrated is "Granite."

Tibor Ltd. of Stratford-on-Avon are pioneers in textured furnishing fabrics, and amongst their latest colours for Hotel furnishing are Cyclamen, Siamese Pink, rich Peacock Blue with Pale Blue Lurex metallic, deep Mustards, Lilacs, and a number of interesting designs in Black/White.

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# THE ARCHITECTURAL REVIEW



On the cover, a detail from a medal by Matteo de' Pasti shows the personal *impresa* of Leone Battista Alberti—an eye borne on the wings of a sparrow-hawk—soaring above the four buildings on which his architectural reputation rests: Santa Maria Novella, Sant'Andrea at Mantua, the Palazzo Rucellai, and the Tempio Malatestiano. The precise meaning of the *impresa* is not known, but it seems likely to have been the emblem for 'Justice strikes swiftly', which, taken with Alberti's laconic motto *Quid Tum?* (What then?), might make an excellent precept for architects to bear in mind. But it has a special meaning for this issue of the ARCHITECTURAL REVIEW, for on pp. 161-164 Roger Hinks, in an article entitled *Peepshow and Roving Eye*, considers what happened to central perspective, the mode of vision which Alberti was the first to codify in his *della Pittura*, when it was transported to the pragmatic North, and used, rejected or modified by the townscape painters of the Dutch School.

## 141 Marginalia

## 144 Frontispiece

## 145 Garches to Jaoul by James Stirling

The recent re-occupation of the villa at Garches, and the impending completion of the group of two houses for M. Jaoul, focus attention on Le Corbusier's progress as a designer of domestic architecture. By comparing the architectural qualities of these buildings it is possible to indicate a far-reaching change in Le Corbusier's philosophy as a designer, for more has changed than merely the methods of construction. The choice of point-supports for Garches and mass-wallings for Jaoul are parts of a complex of reorientations and changes of emphasis which Mr. Stirling sets out to chart in this article. Thus Garches has a quality proper to the Paris region, whereas Jaoul is essentially exotic and anti-urban; space and light flood through Garches destroying internal compartmentation, whereas Jaoul has disparate, box-like (or cave-like) interior volumes; Garches displays the machine aesthetic and proclaims its membership of a technological epoch, Jaoul is anti-mechanistic, traditionalist, earth-hugging; Jaoul is folksy, home-like, cosy whereas Garches demands a continuous house-party of brilliant and extrovert guests; Garches was created for a future which did not quite materialize, Jaoul for a status quo as present

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and actual as the migrant Algerian labour which worked on it. These contrasts, Mr. Stirling suggests, are parts of a continuous architectural development which has not latterly been supported by any new or revised theories. In contrast to the systematic and programmatic quality of Garches, the feeling at Jaoul is of an absence of rationalistic principles, a feeling that these masterpieces of plastic virtuosity must be read as Art for Art's sake, rather than for the sake of a theory. Jaoul, which is new, is for the present; Garches, nearly thirty years old, is for the future and a continuous aspiration after a braver, newer world.

## 152 School at Paddington: Architects, Drake and Lasdun

## 161 Peepshow and Roving Eye by Roger Hinks

In all acts of human observation time is accommodated to space, or space to time. When the viewpoint is fixed, time yields to space; when the viewpoint is movable, space yields to time. These two postulates, of crucial importance to the architect or urban planner, are also the horns of the dilemma of the representational painter—shall the artist, like Brunelleschi, adopt a fixed peephole viewpoint for the sake of a rational spatial perspective, or shall he register on his canvas the displacements and distortions which inevitably follow when eye, head or body moves. Geometrical perspective may convince for the view of an ideal piazza, but is not likely to do so in the random, close-up interstices of a northern city, and Mr. Hinks's article and illustrations demonstrate how those most persistent painters of the urban scene, the townscape artists of the Dutch School, accommodated Brunelleschian perspective to their own needs and situation. His examples are taken from paintings so well-known, in some cases, that they have stamped their author's mode of vision on a scene for ever, and it is necessary to resort to photographic comparisons to see what adjustments have been made to the view.

## 165 Espresso by Marghanita Laski and Stephen Gardiner

One of the phenomena of the 'Fifties in London has been the sudden appearance of the Espresso bar, with its Italian coffee machine, its spectacular décor, its contemporary furniture and its ability to fill a small gap in English social life—the gap between teashop and pub. In their respective contributions on the Coffee-bar problem, Miss Laski considers the sociology of Espresso, its future, its relationship to other English Dream-worlds for eating in, and its rating among other features of the middle-class day. Mr. Gardiner, however, directs his attention to individual bars and their décor—the use of Authentically English idioms, various exotic styles, and an occasional and genuine eccentric like Roy's Bar with its 'illusions' of Baroque Grandeur. On the whole, Mr. Gardiner finds in favour of the present condition of the coffee-bar, because it introduces a new design element into the monotony of the English scene, while Miss Laski finds against its future because she feels it must inevitably be absorbed into the English Teashop system.

## 175 North Africa by G. E. Kidder Smith

North Africa has played a larger part in the development of the modern Movement than is commonly allowed; it has frequently occupied the attention of Le Corbusier, and next year it should be the scene of a CIAM Congress. But it has also a greater general architectural interest than is commonly allowed, and succeeding waves of conquest and occupation have left superimposed layers of culture—Berber, Roman, Arab, French—each finding expression in characteristic building types, constructional methods and conceptions of urban planning. From Morocco across to Tunisia stretches an unexplored terrain full of architectural riches which have hardly been studied or published. Mr. Kidder Smith claims that his photographic tour of this unique region is no more than a skimming-off of the most striking monuments, but even so, it makes a powerful impression of an area of marked architectural characters, and highly interesting individual buildings.

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## 201 Techniques: Architect/Manufacturer Co-operation III by Noel Moffett

## 204 The Industry 208 Contractors, etc.

Authors James Stirling, architect, senior assistant with Lyons, Israel and Ellis. Born 1924, war service in paratroops, then Liverpool School of Architecture, qualifying 1950. Shortest stay on record—5 weeks—in the LCC Planning Department, 1952. Wants the Garches to Jaoul article regarded as an architect's opinion, not a critic's unprejudiced observation. Roger Hinks, born 1903, amateur, but incessant painter; much given to staring when not actually painting. Classical education designed to counteract romantic temperament. Lived for 5 years on the Keizersgracht in Amsterdam. Books include, Carolingian Art (1935); Greek and Roman Portrait Sculpture (1935); Myth and Allegory in Ancient Art (1939); Caravaggio (1953). Marghanita Laski, novelist, critic and journalist. Educated at Somerville College, Oxford. First novel, Love on the Supertax, 1944. Lives in the best Picturesque cottage in London—Capo di Monte, Hampstead.

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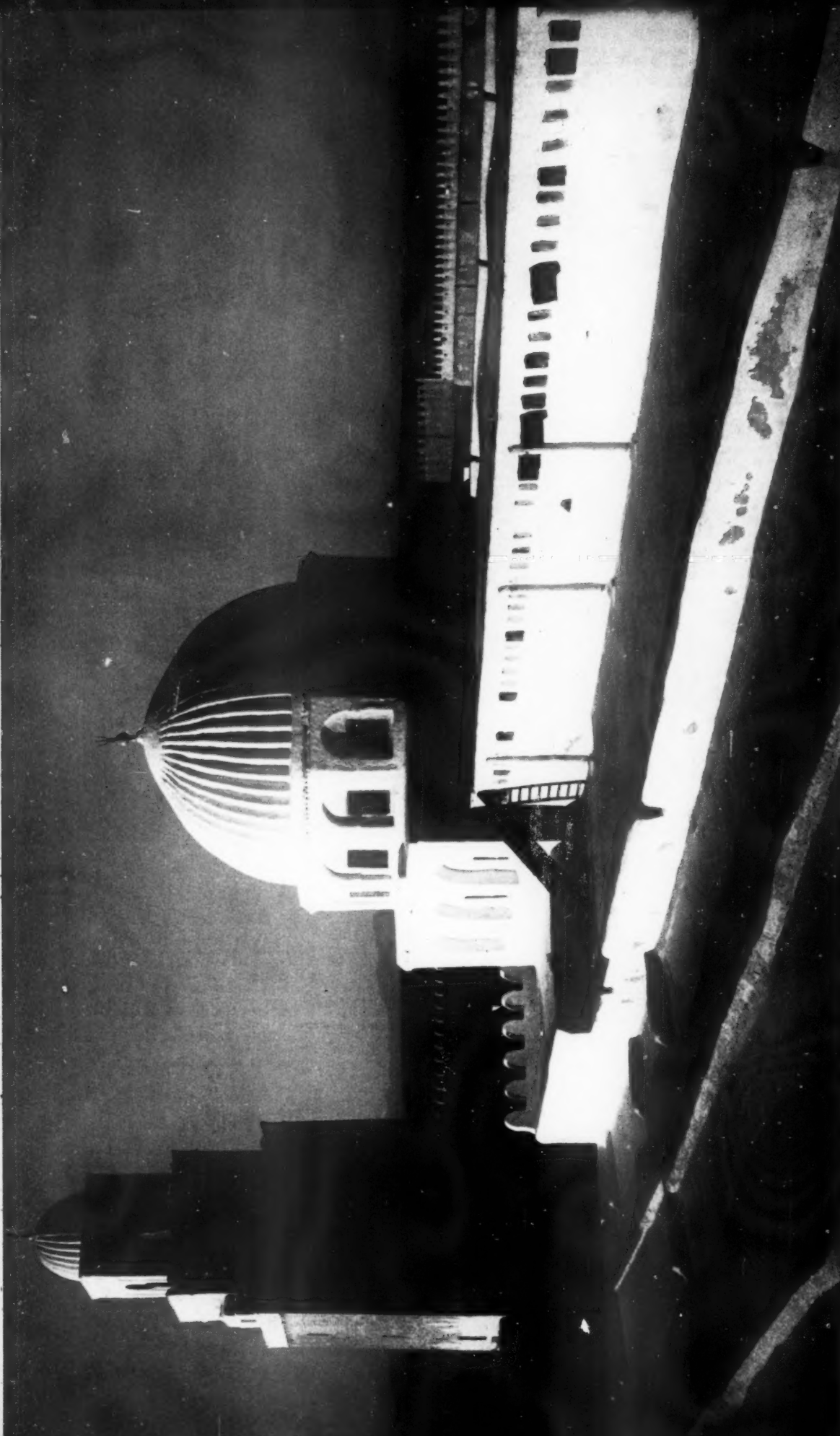
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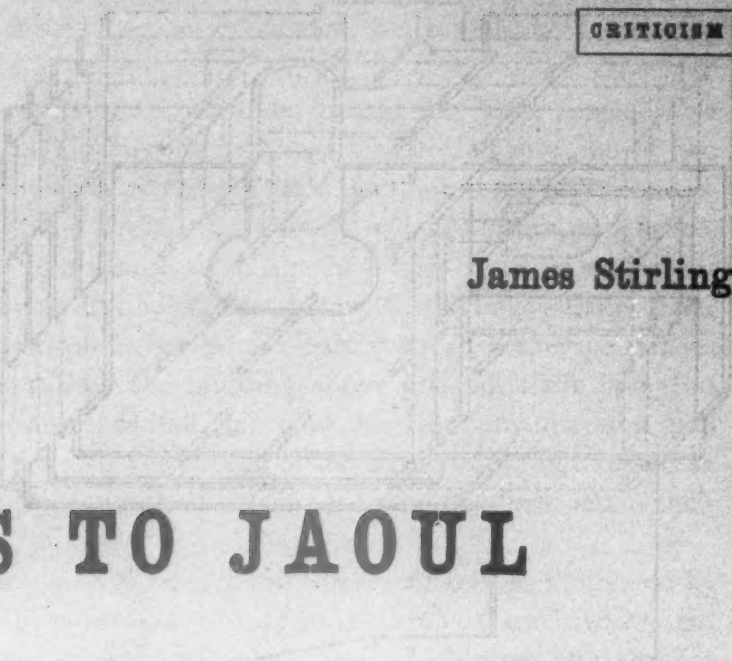
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Holy place of one of Islam's holiest towns, Kairouan in Tunisia, the mosque of Sidi Othman is named after the great Muslim leader who founded the town, and the mosque, in the year 671. It stands today as one of the prime masterpieces of the architectural culture brought into North Africa by the Arabs, but its builders were neither the first nor the last of the invading peoples who brought tribute to the architectural treasure-chest of North Africa. From pre-Roman to post-Corbosier range the monuments of Tunisia, Algeria and Morocco—an unexplored architectural terrain, almost unknown to the Western student, but surveyed by G. E. Kidder Smith in his *North African Scrapbook*, which begins on p.174.



James Stirling

## GARCHES TO JAUL

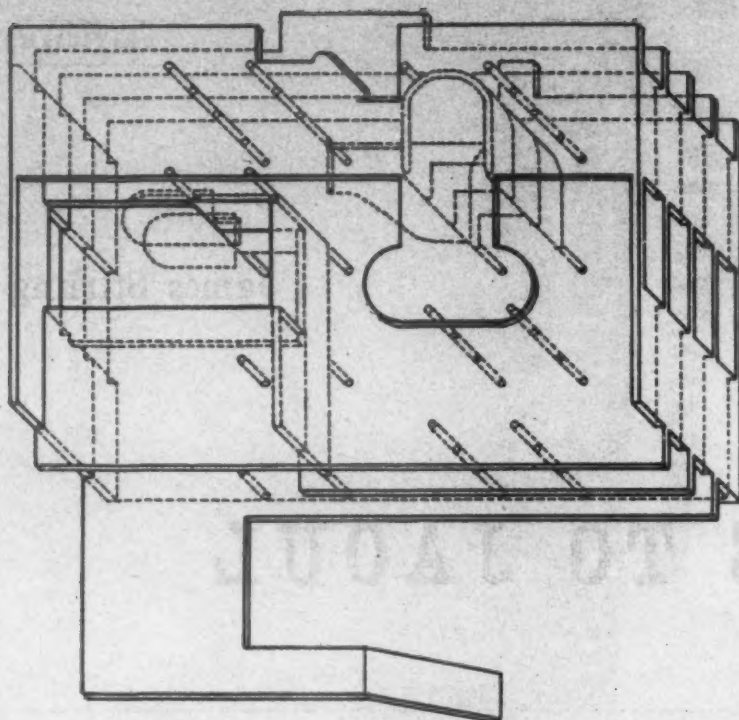
### LE CORBUSIER AS DOMESTIC ARCHITECT IN 1927 AND 1953

Villa Garches, recently reoccupied, and the two houses for Mr. Jaoul and his son, now nearing completion, are possibly the most significant buildings by Le Corbusier to be seen in Paris to-day, for they represent the extremes of his vocabulary: the former, rational, urbane, programmatic, the latter, personal and anti-mechanistic. If style is the crystallization of an attitude, then these buildings, so different even at the most superficial level of comparison, may, on examination, reveal something of a philosophical change of attitude on the part of their author.

Garches, built at the culmination of Cubism and canonizing the theories in "Towards a New Architecture", has since its inception been a standard by which Le Corbusier's genius is measured against that of the other great architects of this century. Inhabited, again by Americans, after 15 years' splendid isolation, it has been painted in a manner more "de Stijl" than the original: walls white inside and out, all structural members black and single planes of primary colour on areas of lesser consequence. It is never possible to see more than one coloured plane from any single viewpoint. On the principal façade, the underside of the entrance canopy is painted sky-blue as the underside of the slab over the terrace. Inside, one wall of the living area is painted yellow, etc.

As with the still deserted Poissy, the deterioration at Garches was only skin-deep; paint decay, broken glass and slight cracks in the rendering; there has been no deterioration to the structure nor any waterproofing failures. Though the landscape has thickened considerably to the rear of the house, trees have not yet grown close against the main façades; where this has happened, at La Roche, Cook and Pleinex, the balanced asymmetry of the elevations, as total compositions, has been grossly disfigured. The one instance among the Paris buildings where trees are sympathetic is the Pavillon Suisse where they have grown the full height of the south elevation, significantly one of the most repetitive façades that Le Corbusier has produced. In more





Villa Garches: axonometric view of basic structure.

extreme examples of additive elevations, as in many American buildings, the presence of trees, naturalistic incidents, might almost be considered essential. The disembowelled machine parts of the Armée du Salut outbuildings have a similar juxtaposition to the neutral backdrop of the slab.

If Garches appears urban, sophisticated and essentially in keeping with 'l'esprit parisien', then the Jaoul houses seem primitive in character, recalling the Provençal farmhouse community; they seem out of tune with their Parisian environment. Their pyramidal

massing is reminiscent of traditional Indian architecture and they were in fact designed after Le Corbusier's first visits to that country. Frequently accused of being 'internationalist', Le Corbusier is actually the most regional of architects. The difference between the cities of Paris and Marseilles is precisely the difference between the Pavillon Suisse and the Unité, and at Chandigarh the centre buildings are indebted to the history and traditions of a native Indian culture; even a project for the Palace of the Soviets makes considerable reference to Russian constructivism. Therefore, it is perhaps disturbing to encounter the Jaoul houses within half a mile of the Champs Elysées.

Assuming that the observer has become familiar with the architecture of Le Corbusier through the medium of the glossy books, then the first impression registered on arriving at the Jaoul houses is unique for they are of the scale and size expected, possibly because of the expressed floor beams. Usually, the scale is either greater or smaller than anticipated, that of Garches being unexpectedly heroic.

Differing from the point structure and therefore free plan of Garches, the structure of Jaoul is of load-bearing, brick cross-walls, cellular in planning by implication. It would, however, be a mistake to think of these buildings as models for cross-wall architecture as this aspect is visually subordinated to the massive, concrete, Catalan vaults occurring at each floor level. These vaults are to be covered with soil and grass to resist thermal expansion and the timber shutter-boards have been set to leave a carefully contrived pattern. Internally one-inch solid steel tiles are positioned at approximately fifteen-foot centres to resist diagonal thrust into the brick walls. At the external centre point of these vaults, bird-nesting boxes are formed, and occasionally concrete rainwater heads are projected from the side-beams, though the pipes drop internally. Rising from the underground garage through to the top of each house are dog-leg stairs, cast in situ; they are a development from the Marseilles fire-escape stair, with the treads cantilevered either side of the vertical concrete slab. By English standards, the brickwork is poor, but then the wall is considered as a surface and not a pattern. Masonry, rubble, or, perhaps more



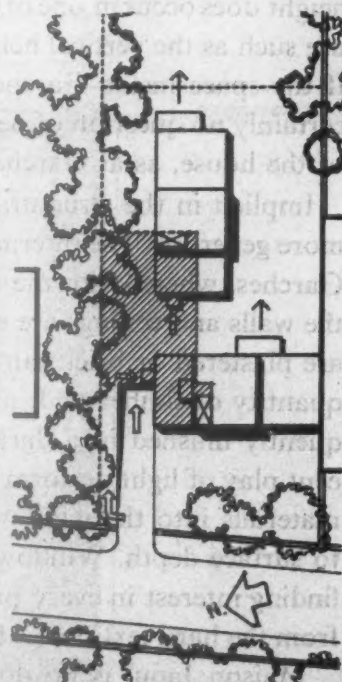
rationally in view of the vault construction, mass' concrete walls could be substituted without difference to the principle of design.

Perhaps the only factor that Garches and Jaoul have in common is the considerable influence of the site on both. All Le Corbusier's buildings tend to fall into one of two categories: those in which the peculiarities of the site are a paramount factor in conception—most notably the Armée du Salut—and those where the site is of little consequence, being subordinated to a preconception or archetype, e.g. the Unité. To some extent this may account for the lack of inevitability, sometimes felt with buildings of this latter category, most particularly the Pavillon Suisse where, except as an archetype per se, there seems little justification for raising the building above ground, there being no circulation or view through. If the entrance hall, approachable from any direction, had been under and not to the rear of the slab, the raising of the block would not appear so arbitrary. None the less, the town-planning ideas which generated this form retain their urgent validity.

The exact relationship and planning of the two Jaoul houses have been motivated by the nature of the site. The circulation is on two levels and of two kinds. Cars drive straight off the road into the garage, a large underground cavern from which separate stairs rise through to each house. Walking circulation is above this garage on what appears to be natural ground level but which is actually a made-up terrace on which the houses stand. This level is linked to the road by a ramp. The differentiation of circulation on superimposed levels and the free movement around the houses are reminiscent in another medium of the suspended routes into the Armée du Salut.

At Maison Jaoul the only entire elevation that can be seen from a single viewpoint is to the rear and has to be observed over the garden wall of the adjoining private property. Owing to the narrowness of the plot, all other façades have to be viewed either episodically through the trees or close up at an oblique angle. The solid-void relationship of the exterior does not appear to follow any easily apparent scheme. This is a development from Le Corbusier's earlier work where at La Roche the drawing board elevation also cannot be seen at right angles and the studied balance of window to wall is destroyed. This is due not only to the trees which have grown since but especially to the necessity of viewing the elevation at a sharp angle.

The hierarchic presentation of external elements occurs also in the work of Frank Lloyd Wright, where the most important feature is the corner, and this may account for much of the undergrowth against the façades proper. It may be argued that the only exterior which can maintain interest, as the eye moves at an equal distance around the corner, is the cage or box. The most notable example of this is the Lake Shore Apartments where it would be inappropriate to suggest a 'principal façade'. Poissy almost comes into the category of the box but only on three sides; the fourth, receiving no undercut, becomes a vertical plane differing from the dynamic horizontality of the others. At Garches there is no point in moving around the corner for there is a very definite axis and the side elevations are of little consequence, their window



Maison Jaoul, rue de Longchamp, Neuilly-sur-Seine  
site plan.

openings positioned functionally make no attempt to arrive at a formal composition. The site boundary lines, defined by tall, closely planted trees, are about six feet from each of these side elevations, making it almost impossible to see them. The long façades, on the contrary, may be seen head on from a considerable distance by the approaching visitor and their balanced asymmetry is masterfully exploited.

Internally, space departs radically from the structure; an explosion in terms of Cubist space is contained within the four peripheral walls which externally give little evidence of this phenomenon, contained except where it escapes and rushes out along the direction of the terrace, to be finally dissipated in the heavy landscape. However, space is not contrived for the sake of effect only, it invariably has a psychological as well as a functional context. For instance, on passing through the front door, the immediate double height and the presence of a stair indicate that the main floor is above. Similarly, the diagonal spatial stress across the first floor suggests the route through the house.

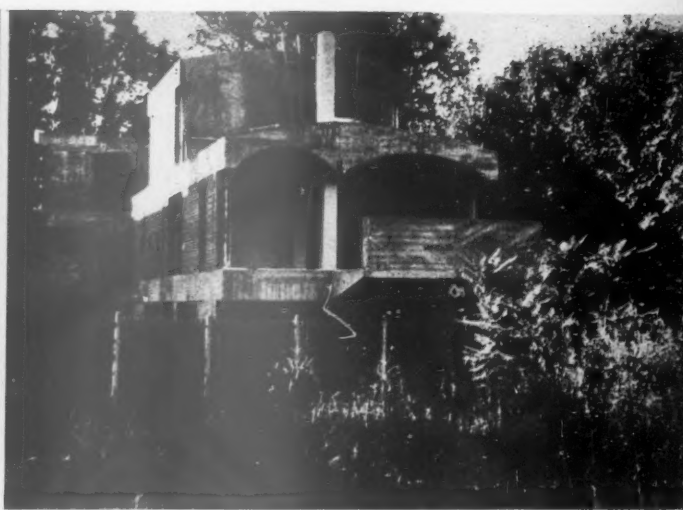
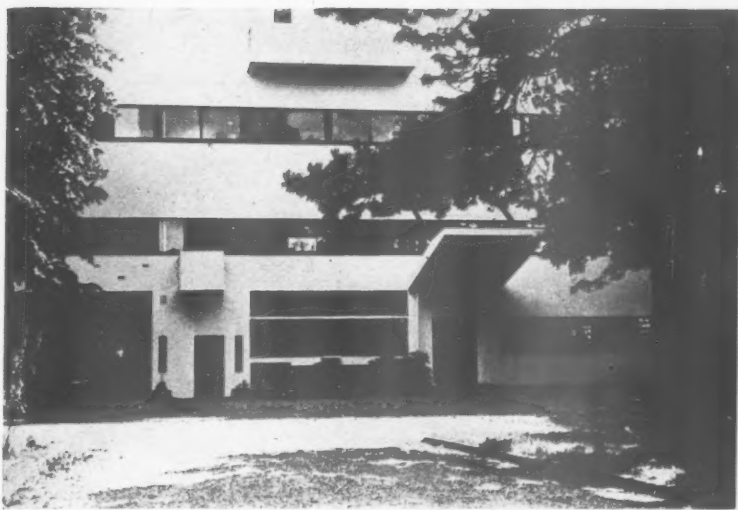
The main living areas are flooded with an even intensity of light, but, where accommodation and circulation are of lesser consequence, natural lighting becomes more restricted and as one moves through the house a continuous contrast in definition is attained. 'The elements of architecture are light and shade, walls and space.' The natural light which penetrates to the interior of the Jaoul houses is consistently subdued and not dissimilar to that found inside many Frank Lloyd Wright buildings.

Eventually somebody will have to consider the numerous similarities between Le Corbusier and Wright, and their common differences from the work of Mies van der Rohe. For instance, the pattern of circulation, repetitive on all floors as in the Pavillon Suisse and many of Le Corbusier's larger buildings, becomes in some of his and Wright's domestic works a route so complex and involved, as at Pleinex, that it is with the greatest difficulty that the stranger finds his way out. To a lesser extent, this applies at Jaoul and again, similar to Wright, the spatial effects, though exciting, are unexpected, encountered suddenly on turning a corner or glimpsed on passing a slit in the wall. Where double height does occur in one of the living rooms it appears as a dead area, having no secondary use such as the vertical height of the Unité flats which lights and ventilates the bedroom. If the space inside Garches can be considered dynamic, then here it is static; there is certainly no question of being able to stand inside and comprehend at a glance the limits of the house, as at Garches.

Implicit in the structural system, rooms tend to be small boxes with the living areas more generous. The internal finishes have a greater variety and richness of surface than at Garches, where, with the exception of the floor, the materials, though not the form, of the walls and ceilings are neutralized. Inside Jaoul, concrete is left shutter-marked, walls are plastered or brick fair-faced, floors are tiled and there is a considerable variety and quantity of timber and, most significantly, the ceiling or underside of the vaults is frequently finished in a dark clay tile which cannot be expected to amplify 'the magnificent play of light on form'. The 'fourth wall'—the incorporation of shelving and opaque materials into the window opening—is symptomatic of Le Corbusier's recent attitude to surface depth. Windows are no longer to be looked through but looked at. The eye finding interest in every part of the surface impasto, does not, as at Garches, seek relief from the hard textureless finish by examining the contours and form of the plane.

Maison Jaoul is no doubt dimensioned according to 'Le Modulor', a development from the application of the golden section by regulating lines as at Garches, where it is





**Garches:** The triangulated balance of the projecting elements appearing in front of the wall, is similar to the rear where the complete elevation is divided into three asymmetrically-balanced features: the plinth, the recess and the wall.

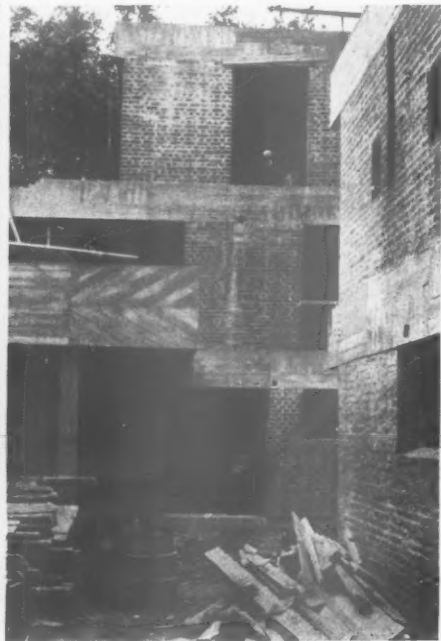
**Jaoul:** The adjoining private garden is the only place from which a conventional examination of any façade can be made.

**Garches:** Metal saucers to throw water clear and avoid staining are pressed into the rendering under the lower canopy supports. The entire building is detailed with similar foresight.

**Jaoul:** The projecting balcony is an extension of the structure, whereas at Garches the external elements have the appearance of being applied.

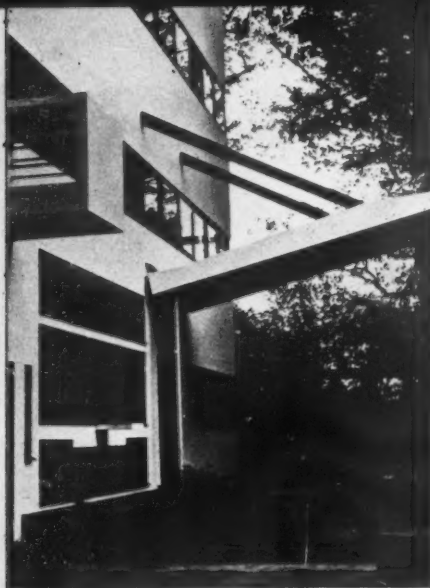
**Garches:** The plinth, on a line with the structural columns, is painted black as are all other principal structural members.

**Jaoul:** The relationships of the façade elements follow no visually apparent geometry.



**GARCHES TO JAUL**





**Garchos:** The changing relationship of the projecting elements increasingly gains the attention as the observer draws nearer to the façade and the importance of the abstract window-to-wall pattern becomes less comprehensible.

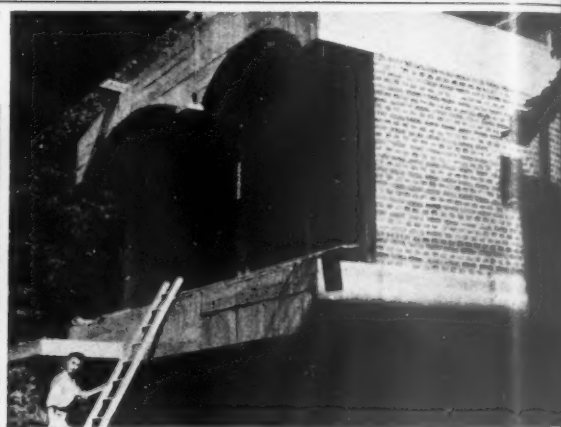
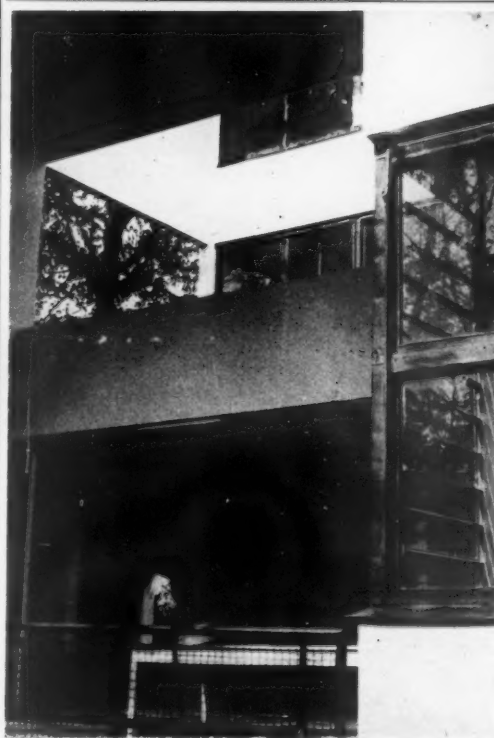
**Jaoul:** Whilst the long elevations rise vertically, the short ends step back in a type of pyramid form. Windows are either 'holes in the wall' or 'fourth wall' units in the larger floor-to-beam openings.

**Jaoul:** Left, the concrete Catalan vaults are to be covered with soil and grass to resist thermal expansion. In the foreground can be seen one of the bird-nesting holes. Right, by English standards the brickwork is poor, but then it is considered as a surface and not as a pattern.

**Garchos:** In 'white architecture', the shadows cast by trees are positive, similar to the reflections exploited in recent American glass architecture. Buildings exposed to strong sun are fortunate in having a third skin—a sun breaker—either

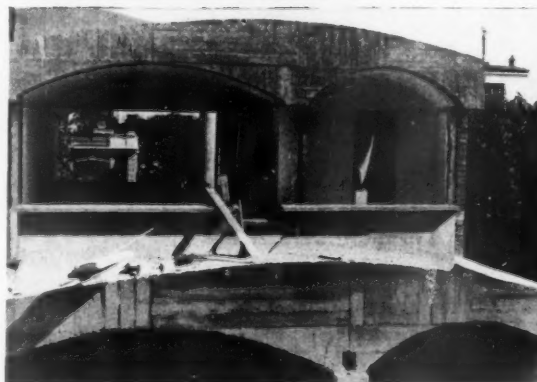
in the form of louvres, brise-soleil, or in this case adjustable blinds. In this country we can only exploit two elements—the window and the wall.

**Jaoul:** View from the road showing garage entrance and platform over. Note the concrete rainwater heads.



**Garchos:** 'The key to aesthetic emotion is a function of space.'

**Jaoul:** View of the first floor, showing the nine-inch brick cross walls from which the vaults spring.



possible to read off the inter-relations of squares and sections as the eye traverses the façade and where, internally, every element is positioned according to an exact geometrical hierarchy. In fact, Garches must be considered the masterpiece of Neo-Palladianism in modern architecture, conceived in plan, section, elevation from two proportions which, owing to their particular inter-relationship, achieve an organic or harmonic whole as distinct from an additive total. The variety of dimensions available from 'Le Modulor' are considerable and as Bodiansky\* has said 'there is always a figure near at hand to adjust to'. This considerable flexibility may create a visually non-apparent geometry, as at Jaoul, but here the restrictions of the site already mentioned must be remembered when considering whether this is a valid criticism.

Garches is an excellent example of Le Corbusier's particular interpretation of the machine aesthetic. The body of the house, built by quite conventional methods for its time, has skin-walls of concrete block rendered to a monolithic, poured or sprayed effect; an aesthetic for a structural system not yet in being. Yet while Garches is not the product of any high-powered mechanization, the whole spirit of the building expresses the essence of machine power. To be on the first floor is to witness the Mumfordian end product of twentieth-century technology, 'the silent, staffless power-house'. The incorporation of rail-road and steamship fabrication is decidedly technocrat and the integration of architecture to specialist requirements extremely considered as the boiler-house disposed like an industrial engine-room or the timber-strip flooring obviously laid by ship's carpenters. The type of detailing in synthetic materials here and at the Armée du Salut is almost the last of the steam-age period; crude maybe, it is nevertheless powerful. After this date, the number of synthetic materials per building increases, and, as at the Pavillon Suisse, the detailing becomes more refined but somehow less memorable. There is no reference to any aspect of the machine at Jaoul either in construction or aesthetic. These houses, total cost £30,000, are being built by Algerian labourers equipped with ladders, hammers and nails, and with the exception of glass no synthetic materials are being used; technologically, they make no advance on medieval building. The timber window-wall units may be prefabricated but as with technology one suspects that prefabrication must begin with the structure.

To imply that these houses will be anything less than magnificent art would be incorrect. Their sheer plastic virtuosity is beyond emulation. Nevertheless, on analysis, it is disturbing to find little reference to the rational principles which are the basis of the modern movement, and it is difficult to avoid assessing these buildings except in terms of 'art for art's sake'. More so than any other architect of this century, Le Corbusier's buildings present a continuous architectural development which, however, has not recently been supplemented by programmatic theory.

As homes the Jaoul houses are almost cosy and could be inhabited by any civilized family, urban or rural. They are built by and intended for the status quo. Conversely, it is difficult to imagine Garches being lived in spontaneously except by such as the Sitwells, with never less than half a dozen brilliant, and permanent, guests. Utopian, it anticipates, and participates in, the progress of twentieth-century emancipation. A monument, not to an age which is dead, but to a way of life which has not generally arrived, and a continuous reminder of the quality to which all architects must aspire if modern architecture is to retain its vitality.

\* The structural engineer for the Marseilles Unité.



The idea of the nursery or junior school as the natural focus of the internal life of a residential neighbourhood has gained wide acceptance since the war—but only as an idea, for even when it is a topographical fact it rarely registers as a visible and architectural fact. The new school in the Hatfield Estate, Paddington, is probably the first which has been designed to appear physically as the natural centre of the area. Its assembly hall thrusts forward into the shopping terrace, equidistant between two ten-storey blocks, and its main axes answer to those which govern the planning of the neighbourhood. Thus placed, its design requirements are far less stringent to allow of the minimal diagrammatic planning which has become common practice since the war, for many of Hatfield's inhabitants will be able to regard its plan from the altitude of their high-rise dwellings, and it must present them with a comprehensible visual image, not a loose agglomeration of buildings. But this its general plan does enable it to do, for the architects, in aiming to create a building which should be sympathetic both to teachers and to taught, have evolved the formal solution of a pattern of low infants' classrooms and adjacent courtyards sheltering under the curve of the junior block, as comprehensible from above, opposite, as it is stimulating from within.

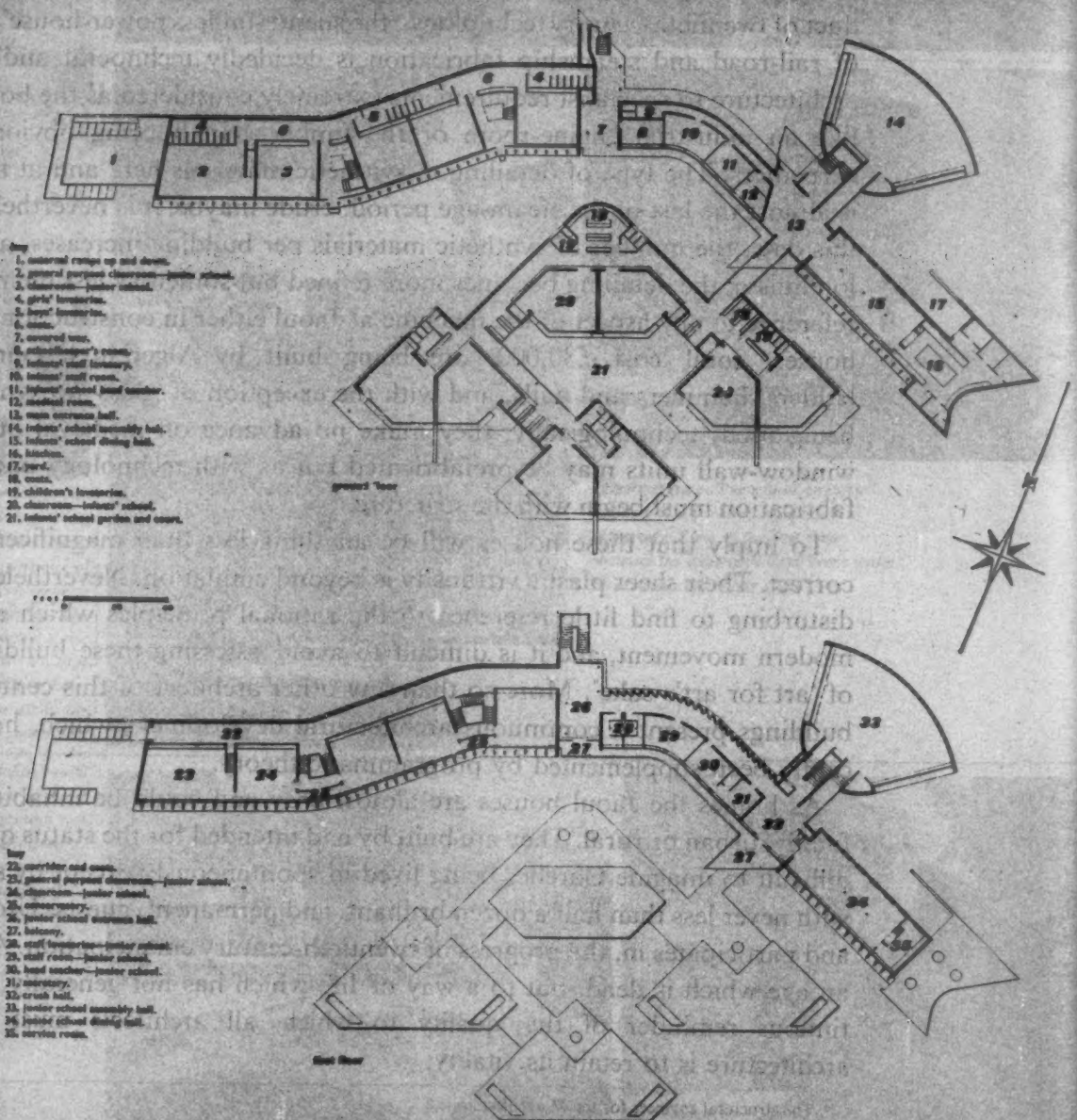
## SCHOOL AT PADDINGTON

ARCHITECTS

DRAKE AND LASDUN

Assistant Architect

John Shaw





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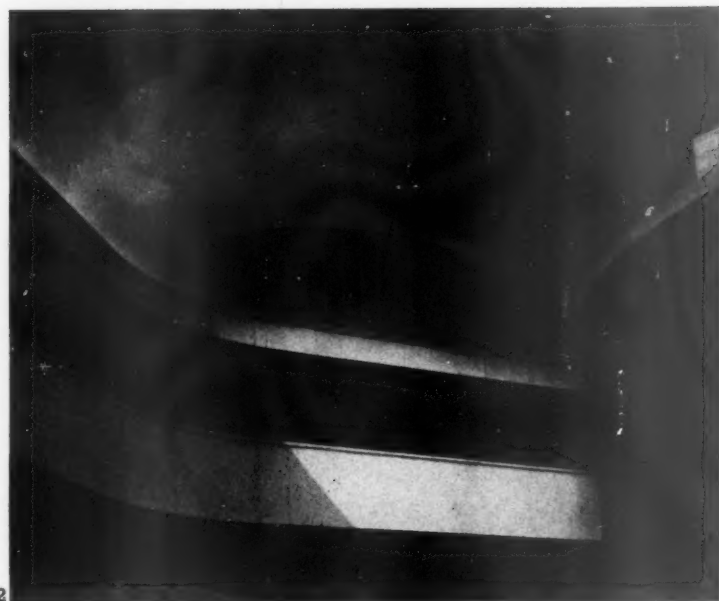
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# SCHOOL AT PADDINGTON

The site of the Hallfield Primary School, which is 2½ acres in extent, was occupied by large Victorian houses and their gardens, containing many fine trees which, where possible, have been preserved. The level of the site is on an average 6 ft. below that of the surrounding roads.

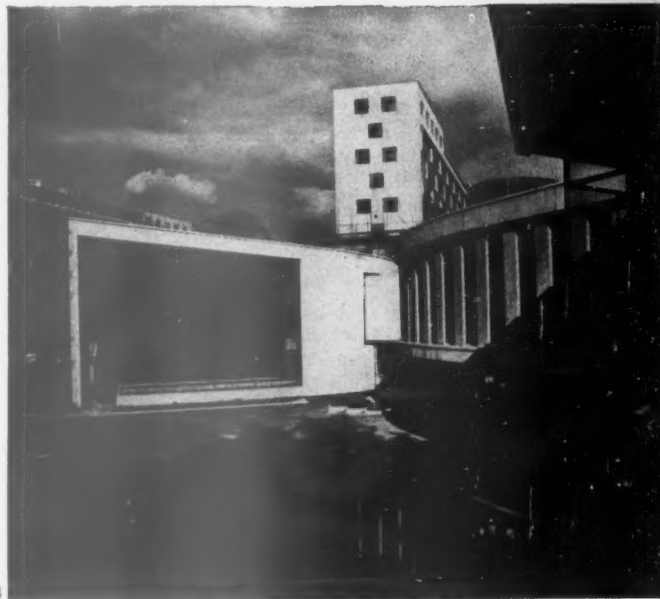
The School is an extension of the Hallfield housing scheme to the north (AR, November, 1954) and its main entrance is from this side. The general prospect of all rooms is southward. The junior school is planned on two floors, but with its administration centre along a corridor on the first floor, with direct access to the juniors' assembly and dining halls; the infants' administration centre and halls are immediately below the juniors', on the ground floor, with access to the independently planned single-storey infants' block to the south. Sixty-five per cent of the children can be fed in two dining-hall sittings; with extra accommodation in the crush halls on the first floor. The assembly, crush and entrance halls are used out of school hours for adult social activities.

The structural system, resulting from close collaboration between architect and engineer, is an exploitation



1, south view of two-storeyed block mainly devoted to juniors' classrooms. The structural mullions are in stone-faced precast concrete. 2, view of water tanks enclosed in blue glass situated above the administrative section. 3, west side of projecting block which contains juniors' and infants' assembly halls, on the upper and lower floors respectively. 4, juniors' classroom block, with Inverness Terrace beyond, seen from balcony which projects over corridor linking infants' block with entrance hall and main building.

of all the possible load-bearing elements, and is best illustrated in the junior classroom block. The dividing partitions between the classrooms are built in 9-in. brickwork, to ensure the greatest noise reduction, and these form load-bearing cross walls at 24-ft. centres. Because this is more than the economic limit for single-span slabs, it was therefore necessary to support the floor on all four sides, thus allowing the slabs to span in two directions. The third support is given by deep reinforced concrete beams which form the division wall between the classrooms and the corridors. By adjustment of the profile of these beams the needed storage space is provided to both areas. The fourth side of the slab is supported by the mullions, which master the continuous external glazing. The mullions, which occur at 4-ft. centres, are free-standing and separated from the superstructure except for the load transfer connections at the first floor



3



section through assembly hall, administration and infants' block

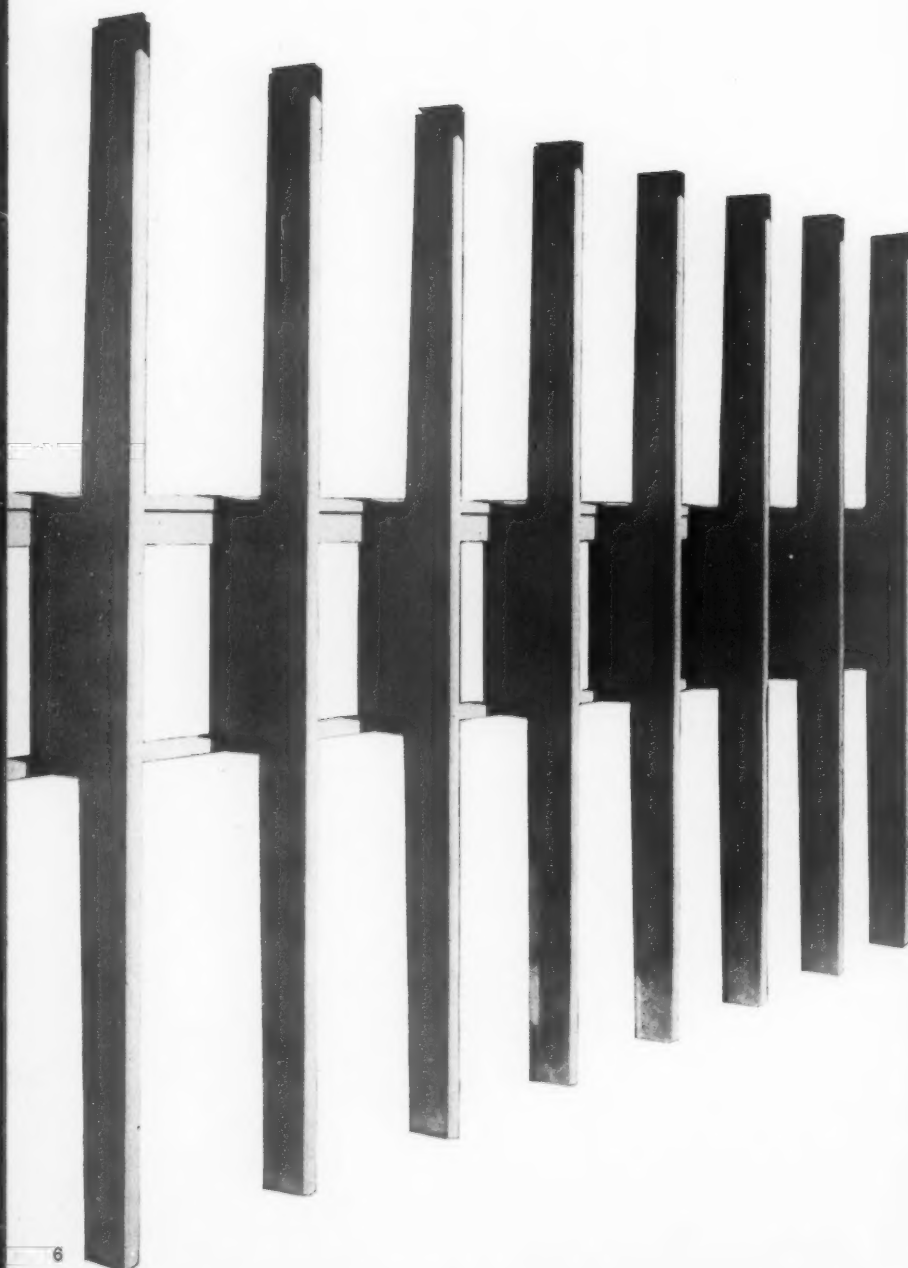
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# SCHOOL AT PADDINGTON

5, detail of juniors' block frontage, showing the continuous external glazing. The mullions are at 4-ft. centres. 6, cut-out of the precast concrete structural mullions and transoms. 7, view from hexagonal window in infants' block looking across to juniors' block. 8, view from N.E. side of school with kitchen in foreground, assembly halls on the right and juniors' block left; infants' buildings are in the centre. 9, view looking into the infants' garden and court, in a space made by the four pentagonal classroom units.



5



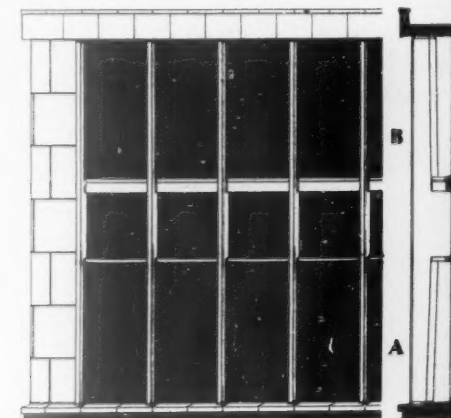
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and roof levels. The mullion reinforcement to deal with the direct forces and moments due to the eccentricity of the first floor connection was sufficient for the stresses arising during the handling and erection of the units, although as an additional safeguard cradles were provided during the transport of the units from the factory.

The mullions and louvres are the main features of the elevations of the two-storey buildings. Cavity panels of black brick are used between the mullions on the north side of the buildings. All the structural members are precast concrete faced in Portland stone, or *in situ* reinforced concrete with natural and spatterdash coloured finish. Stone-faced cladding slabs are used as shuttering for *in situ* concrete external walls. The screen to the water tanks on the roof consists of trans-

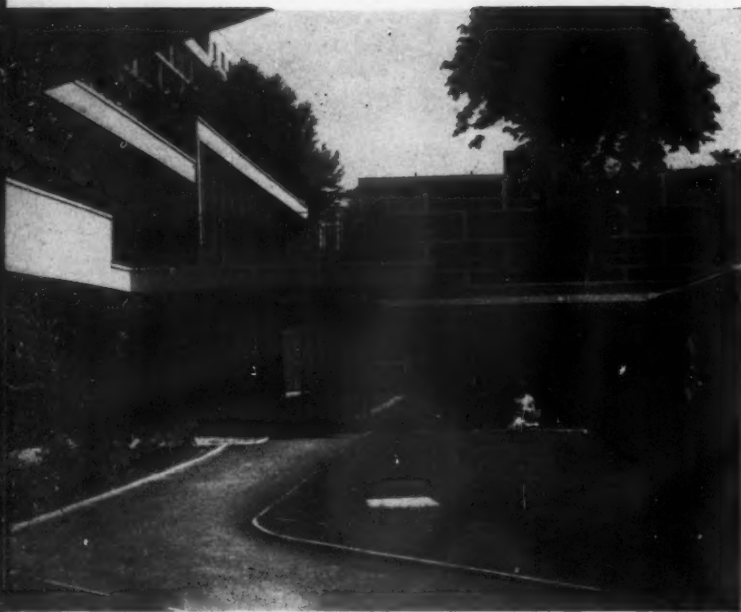
lucent blue glass panels. The lower floor of the administration block and the whole of the infants' section are of black brick load-bearing cavity walls, with liberal use internally of buff sand lime facing bricks. All windows are special sizes of domestic sash and painted black externally. The exterior of the gable walls between the administration block and the junior school and dining halls is painted with maroon-coloured special enamel. Roofs are of reinforced concrete, insulated with foam slag aggregate screeds and asphalted. Hollow pots are used in flush panels between concrete beams in the assembly hall roof and first floor, and in the infants' school classrooms. The lower-level roofs over the infants' school corridors are covered with red marble chips.

Internally, the load-bearing cross walls to the junior school staircases are of pink sandlime bricks. Black bricks are used for the internal panels of the junior school corridors, and white glazed bricks in the children's lavatories. All other walls are plastered and decorated with emulsion paint. Bright colours are restricted to focal points where the eye comes to rest. Doors are faced with Italian poplar and clear varnished. Floors generally are covered in thermoplastic tiles; those in the lavatories and the infants' corridors are in red quarry tiles. There is yellow jointless flooring to the main entrance hall and



PLAN AT A B  
south side and part-section of junior school

**SCHOOL AT PADDINGTON**

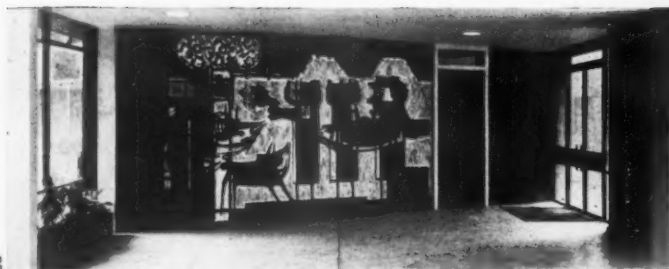


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10, corridor between infants' school and administration building with cantilevered balcony over. 11, view of juniors' block from west side, showing the ramp giving access to an internal corridor. Cavity panels of black brick are seen between the mullions.



11



12

12, entrance hall with wall painting by Stefan Knapp, and door beside it leading into passage with administration rooms off. 13, Conservatory on the first-floor landing, joining junior classrooms.



13





14

14, infants' classrooms, seen against juniors' block; roofs of both are of reinforced concrete. 15, corridor along the north side of the juniors' block, on the first floor, with a continuous row of shoe-lockers placed so as to provide a bench seat. 16, view from the crush hall, on the first floor, looking towards the juniors' dining room.

red in the kitchen. Chipwood floor tiles are used in the assembly halls.

Heating and hot water are provided from the steam mains on the Hallfield housing site by steam-water heat exchange equipment in the school basement. The mural painting in the main entrance hall is by Stefan Knapp. It is on one piece of canvas stuck to the plastered wall surface, and much of the painting was done after the canvas was in position. The interior panels between the mullions in the dining halls are available for mural paintings by the children. The floor area is 42-70 sq. ft. per child and the nett cost of the buildings and playgrounds is within £140 per child. The assistant architects working with John Shaw as architects-in-charge were Kris Kossak and Bernard Kreeger. The consulting engineers were Ove Arup and Partners.



15



16



17



17, passage on the first floor between the juniors' entrance hall and the crush hall, looking in the direction of the latter. 18, the same looking in the opposite direction; the rooms off the passage are offices for the junior school.

18

# PEEPSHOW AND ROVING EYE

An artist, looking at a scene he proposes to paint, is theoretically free to imagine himself as either outside, or inside, the space to be represented. That is to say: he may regard his subject as excluding, or as including, the spot on which he stands, the point from which his eye observes. Thus: either his viewpoint is fixed, and his subject is espied as through a peephole; or his viewpoint is movable, and his subject is explored, as by a roving eye.

In all acts of human observation time is accommodated to space, or space to time. When the viewpoint is fixed, time yields to space; when the viewpoint is movable, space yields to time.

In theory, then, the painter is free to choose either viewpoint. In practice, painting is a static art; and its normal function of converting temporal into spatial experience must predispose the artist in favour of the peepshow, must inhibit his eye from roving.

Here, in Europe, visual experience progressed from the spatial-temporal anarchy of primitive representation to the ideal conquest of space by the real sacrifice of time. In the scheme of perspective invented, probably by Brunellesco, in the fifteenth century, space is logical, and constructable; but it is not true to experience, because it takes no cognizance of the roving eye of reality. Contrariwise, the space of experience is not geometrically consistent, and still less geometrically representable. Here is a dilemma, which can only be evaded by subterfuges.

Brunellescan perspective presupposes one eye, not two; in a rigid head, not a movable one; set on a rigid body, not a movable one. The eye gazes fixedly at a vanishing-point; and the lines which flow towards that point are called orthogonals. The space thus conceived is projected on to a plane, arbitrarily interposed between the space itself and the conceiving mind. (This plane may be thought of as the focusing-screen of a camera.) On that plane all the edges of planes parallel to it are themselves parallel, whether vertical or horizontal.

In the perspective of experience we must allow for two eyes, and a movable head, on a movable body. The eye roves—rather, the eyes rove—from one vanishing point to another in an endless sequence; planes become curved surfaces; and straight lines become parabolas.

Brunellescan space is imaginable in the wide piazzas of an Italian city; it is not imaginable in the narrow market places of a Northern city. Italian painting tacitly accepted its limitations; Northern painting impatiently rejected them. The progressive discarding of this strait-jacket is the theme for these variations.



1, Piero della Francesca, Architectural Composition.



2, Gerard David, the Adoration of the Kings (detail).

1 A perfect equipoise of masses and forces about a geometrical centre—such is the artist's ambition, in this hymn to the Brunellescan ideal of perspectival unity. But observe that the buildings themselves are not symmetrical, do not repeat each other mirror-wise to right and left. The Renaissance deliberately avoided such exact correspondences: Pius II's little square at Pienza is the classic example of what the Baroque would have called a 'missed opportunity'; Michelangelo's Campidoglio and Bernini's colonnades at St. Peter's represent the extreme limit of architectural symmetry acceptable to the individualistic Italian spirit, and note that the Place des Vosges in Paris, the town of Richelieu, the Plaza Mayor in Madrid, the Piazza in Covent Garden are the products of non-Italian minds.

2 Long after vanishing-point perspective was known in the North (e.g. to Dirk Bouts, in his 'Last Supper' at Louvain, c. 1460), empirical non-systematic representations of space persisted in late Gothic painting. Here the lines revealing surfaces parallel to the picture-plane are strictly horizontal and, therefore, the scheme is not purely a translation of casual observation. On the other hand, the orthogonals do not seek a common vanishing-point; and the whole conception of space is 'plausible' rather than 'exact'. Gerard David expects the bodily eye of his spectator to rove; to dwell first on the ruined castle and then to wander to the three men and a dog in the village street; and thence again to the perched haphazard roofs and the picturesque towers on remoter eminences. The mind is not intended to organize all this into a visual cosmos; nor does it—like a bee, it flits from flower to flower, sipping, tasting, remembering, anticipating.



3 The devotee of Brunellescan perspective, like Piero, accepts with a good grace the marginal distortions introduced by the horizontal edges of all surfaces parallel to the picture-plane; but he mitigates them by keeping his vanishing-point as near the centre of the picture as possible. The mannerist, on the other hand, positively enjoys these distortions; and by introducing a vista near one side of the picture, deliberately makes them as glaring as possible. In an artificial capriccio, like that of Hendrick Aerts, the buildings are so fantastic that the sense of probability is not affronted.

4 At a first glance, Saenredam appears to perpetuate the late Gothic tradition of a Gerard David. Here there is no unifying sense of space, no foreground, and no distance; there is one little escape down a narrow alley to the left, and to the right there is no cramping repoussoir—only an empty corner. Saenredam's composition leaks away, as it were, at the edges; and his buildings have a cardboard, almost a flimsy quality. This is because he is a victim of two tyrants, whose claims are incompatible; one tyrant is Brunellescan perspective, with its imperative frontality, its insistence on the absolute horizontality of the edges of all planes



3, Hendrick Aerts, Architectural Fantasy.



4, Pieter Saenredam, The Old Raadhuis at Amsterdam.

parallel with the picture-plane; and the other tyrant is the mannerist vista in the extreme corner, and the consequent eccentricity of the vanishing-point. The distortions which Aerts managed to mask by chiaroscuro are exhibited by Saenredam in all their nakedness, and seen at their most acute in the tower, which is twisted all out of shape by the pull-devil pull-baker struggle between the two tyrants.

5 The problem of composing a relatively small space dominated by a disproportionately large building is to decide whether to mitigate or to emphasize this discrepancy. Berckheyde, one of the most resourceful of seventeenth century topographical painters, tried both experiments. The Fitzwilliam version mitigates it. By taking up his position under the colonnade of the Town Hall he provides an emphatic foreground, and so flings back the great bulk of St. Bavo into a discreet middle distance. By arbitrarily diminishing the size of the three nearest figures, just outside the colonnade, he gives monumental proportions to what is in fact an extremely modest porch; all the rest of his figures are some way off, neutral and stationary, or turning towards the church, so that they, too, play their part in keeping the great building in its place.

6 In this version Berckheyde adopts the opposite tactics, and makes St. Bavo completely dominate the square, as it does in real life. The little colonnade of the Town Hall is now pushed into the corner—though by being in the immediate foreground, and in shadow, it can hold its own with the large central mass of St. Bavo. The church, in its turn, is prevented from being too overwhelming by the jagged façade of the Vleeshal, which cuts sharply across the bright sunlit west front.



5 and 6, Gerrit Berckheyde, Groot Markt, Haarlem, Fitzwilliam and National Gallery versions.

Meanwhile, observe the movement of the bystanders: they are willing agents in the orchestration of space, moving, pausing and pointing exactly where the exigencies of the composition require.

7 The Dam presents the townscape with the same problem as the Groot Markt at Haarlem, in that it is dominated by a massive building—the Stadhuis—set at an awkward angle to an adjacent building of almost equal importance, though of less commanding size—the Nieuwe Kerk. Berckheyde balances them by casting the façade of the Stadhuis into shadow and illuminating the flank of the Nieuwe Kerk.

8 Taking very nearly the same standpoint as Berckheyde, but using a slightly different section of the visual field, Jan van der Heyden manages to produce a very different effect with virtually identical materials. He chooses a diffused morning light that throws the church and the adjacent buildings into the distance and considerably increases the apparent size of the square; and the whole conception is more monumental and heroic.

9 Both Berckheyde and van der Heyden give plausible accounts of the scene, which those who do not know The Dam accept in both instances at their face value. Both suggest that it is possible to stand back and take a comprehensive view of the Stadhuis without much craning of the neck. Mr. Terwen's 'normal' photograph proves that this is an illusion; the spectator sees before him only the lower storey of the building, and at most the south transept of the Nieuwe Kerk. Moreover, he can retreat only into the Kalverstraat, from which any view of the Dam is at once constricted.



7, Berckheyde, The Dam, Amsterdam.



8, Jan van der Heyden, The Dam.



9 and 10, 'normal' and 'corrected' photographs by Jan Terwen.

10 In order to reproduce the views 'seen' by Berckheyde and Jan van der Heyden, Mr. Terwen was obliged to resort to a double artifice. He first tilted his camera to include the cupola of the Stadhuis, and in order to 'reverticalize' the building, had to correct his tilted and distorted photograph in the enlarger. When examined closely, the two pictures and the photograph reveal significant discrepancies. For example, the cupola appears to be elliptical instead of circular. Exactly the same distortion appears in Jan van der Heyden's cupola: which proves that he constructed his picture rigorously on a Brunellescan projection. Berckheyde, on the other hand, looked up; and noticing that the cupola looked circular, drew it so, regardless of the fact that it is thus inconsistent with the other co-ordinates of the perspectival scheme. Berckheyde and van der Heyden are no more 'accurate' than Saenredam: they are only more 'plausible'.





11, Jan van der Heyden, The Westerkerk, Amsterdam.



12 and 13, 'normal' and 'corrected' photographs of the Westerkerk, Amsterdam, by Jan Terwen.



**11** Anyone who knows Amsterdam well knows the dominant impression of the Westerkerk seen from across the Keizersgracht. In order to see the Keizerskroon on the top of the steeple he must throw his head back and forget what lies at his feet. Jan van der Heyden's version of this view gives quite another impression: a relatively small church in the middle distance, with plenty of space around it. What has happened?

**12-13** Once again Mr. Terwen has been able to demonstrate the 'normal' and the 'wide-angle' view, as controls for the synthetic interpretation of Jan van der Heyden. The 'normal' view (with

a car in the foreground to give scale) shows what the spectator sees straight in front of him across the gracht. With a wide-angle lens, and by tilting the camera a little, it is possible to take in as much as the centre of van der Heyden's picture, but not its lateral extension to right and left, without acute distortion. Once again, the Brunellescan perspective scheme, applied to a refractory subject, necessitates adjustments which produce a result acceptable in itself but bearing little relation to the actual view. This is enough, surely, to prove that neither Berckheyde nor van der Heyden used a 'camera obscura' in setting up their vedute.

**14** On October 12, 1654, a powder-magazine exploded and laid waste a whole quarter of Delft. Among the victims of the disaster was Carel Fabritius, already at 32 in the forefront of the most progressive Dutch school of the mid-century, the school of which Jan Vermeer was to be the supreme master. In this group of pioneers Egbert van der Poel is admittedly one of the minor figures. He was, in fact, a pictorial journalist. But that is exactly why he is of interest in the present connection: it is, indeed, quite probable that van der Poel actually used a camera obscura in setting out this panorama of the ruins. Delft was at this moment a centre of optical research; and its painters were among the first to profit by the discoveries of the instrument-makers. Samuel van Hoogstraten describes how he saw the camera obscura in use in London and Vienna, and mentions cabinets which, viewed through a peephole, created the illusion of colonnaded palaces. The peep-show box is only a camera obscura in reverse; and there is plenty of evidence throughout the seventeenth century to show that topographers made use of the device. Cornelis van der Meulen, a friend of Vermeer's, painted a view of Stockholm by these means; and Egbert van der Poel's 'catastrophographs' have the haphazard, unplanned look of pictures put together from an outline traced in the dark chamber.



14, Egbert van der Poel, Delft after the Explosion of 1654.

**15** Two years before the explosion, Fabritius painted a tiny picture which is one of the curiosities of seventeenth-century art. Here we have something radically different from the townscapes of Berckheyde and van der Heyden. The violent juxtapositions of the near and the far, the odd foreshortenings, the wilful truncations are still, perhaps, relics of mannerism. But the suggestion of spherical distortion, as in a convex mirror, is something new: the Oude Langendijk is, in fact, straight, but Fabritius gives it a parabolic curve. He implies that you can look down both vistas simultaneously without moving your head: which is, in fact, impossible. And he hints that the church is small and far away, whereas it is large and very near. Altogether one has an uncomfortable feeling of having seen the view through the wrong end of an 'optic glass', or what was then called a 'perspective'. But a close examination of the church alone, restores the building to its proper proportions. This should remind us that



15, Carel Fabritius, View of the Nieuwe Kerke, Delft.

the cabinet-sized townscapes of the seventeenth century were meant to be examined at close range: it was the impressionism of the nineteenth century that taught us to keep our distance, and to take in a whole picture at a single glance.



16, Carel Fabritius, View of the Nieuwe Kerk, Delft (detail).



17, photograph of the Nieuwe Kerk, Delft.

**16-17** A comparison of the detail from Fabritius' picture with a photograph not only shows his remarkable fidelity to natural appearances, but also reveals his complete freedom from prejudices in favour of Brunellescan frontality. Fabritius suddenly seems like a nineteenth-century painter when you compare the Degas-like

asymmetry of his Delft picture with the vedute of Berckheyde and van der Heyden. Such visual impartiality, in the mid-seventeenth century, is quite revolutionary: had Fabritius learnt to compose in this way by pondering on the image projected by a camera obscura?



18, Jan Vermeer, View of Delft.



19, Jan Vermeer, View of Delft (detail).

**18** Vermeer carries to perfection the detached vision of Fabritius. His views are impartially 'interesting' all over. In the 'View of Delft', Vermeer takes great pains to avoid a focus of attention. The long horizontal line of the roofs is, indeed, parallel to the picture-plane, but it is far away. There is a hint of a vista in the middle of the picture, but it is immediately blocked by the bridge and by row upon row of horizontal roofs. Moreover, the lack of accents, the blurred definition, the incuriosity about texture all suggest that Vermeer has studied his view in a camera obscura.

**19** It is possible to cut up Vermeer's panorama into any number of vignettes, each more 'picturesque' than the whole picture. The central section, for example, makes a nice 'classical' composition—a sort of seventeenth-century Corot. But to do this is to undo an entirely unconventional scene into something almost platonically conventional. One suddenly realizes that Vermeer, unlike all earlier townscapists, intended his picture to be taken in at a single glance, from a convenient distance: like an impressionist, he actively discourages peering. The spectator's eye is not invited to rove.

**20** It is instructive to compare 'Het Straatje' with Saenredam's 'Oude Raadhuis'. Both represent buildings seen frontally, across a very narrow foreground. Both break this 'flat-on' effect with a little vista which carries the eye just so far, but no further. But whereas Saenredam gets into difficulties by at once revealing a vanishing-point far to the side of his picture, Vermeer exercises all his ingenuity in concealing precisely where his vanishing-point is, by the almost total suppression of his orthogonals! Fabritius, hinting at the use of a convex mirror, advertised his knowledge of optics and his independence of convention. Vermeer, self-effacingly, points to the real solution of the Brunellescan dilemma: not the multiplication of vistas, but the suppression of vistas.



20, Jan Vermeer, Het Straatje.

The paintings in the articles come from the following galleries: 1, Urbino Pinacoteca. 2, 6, 14, 15, National Gallery, London. 3, 4, 20, Rijksmuseum, Amsterdam. 5, 7, Fitzwilliam Museum, Cambridge. 8, Uffizi, Florence. 11, Wallace Collection, London. 18, 19, Mauritshuis, the Hague.



Marghanita Laski

## ESPRESSO

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The first reaction is surprised delight. It's quite extraordinarily nice to walk into a place of refreshment in England where taste, both gastronomic and visual, is deployed to please. How clever, how pretty, what fun, we say, looking at the blown-up prints from Victorian catalogues, the caged toucans dividing up the open plan, the terrifying Jungian archetype that is an ibex, jewel-bedecked, in a mauve satin frock.

After a round of visits, surprise gives place to recognitions. There's that same machine, apparently made especially for this new market, since 'Milano' at the top is balanced by 'It works without steam' on both sides. Here are the wooden vertical slats, sometimes up the bar-counter, nearly always facing the box on the floor with the green fleshy plants inside. There are those same little taper-leg wicker-seated backless stools—fortunate to be female and get the banquette. And here are the strings of garlic, the periodicals on bamboo racks, the elliptical mock-Picasso dishes, smaller for ashtrays, larger for marrows and gourds; here are the thick glass coffee-cups on the bare inorganic table-tops, the trolley of rich squashy pastries, and there, overhead, the rectangular Something hanging from the ceiling.

At last one can be reasonably sure of the range of variation. In Conspicuous Display, from simple shoestring British, black, white, and a good strong colour or two—rarest, this, but I personally think the nicest—through Italianate to cultural Spanish outposts like little islands of Latin America, these last with dim suggestive lighting in conically concealed glints and not quite soft enough music. Here, too, cunningly wrought iron, not bamboo, supports the ubiquitous aristolochia, and the Special Feature on the wall has obviously cost money as well as thought. Service, always matey ('I don't think you've met —') ranges from full skirt, black sweater, urchin cut, through jolly bosomy middle-

aged blondes to graceful young men without jackets, sometimes Negro without gaudy outhanging shirts. Remarks overheard range from 'Do you know Jonathan Miller at all?' to 'Do you think I dare say cappuccino?'

This last probably marks the present outside limit of the true coffee-bar, for the one in which I picked it up, although including the machine, the slatted plants, the ceiling-sling, the trolley and the Special Feature, also had tablecloths, chairs with backs, waitresses in aprons and a French name. If you hadn't known about coffee-bars, you'd have said it was a teashop.

But what, you may ask, is the real difference between a coffee-bar and a teashop, and it's a question that might as well be asked here and now, since whatever difference there is won't exist very much longer. At this moment, you could still make a moderately funny cartoon of the lady who went to El Dildo and asked for a cup of tea; but already at least one has scribbled 'Tea: 6d' at the bottom of its neatly typed menu. Already there is a coffee-bar in Cricklewood; already there is a coffee-bar called Lindy Lou's Parlour.

When the coffee-bar started in England it was, of course, the new refreshment-room dream, the English upper classes having always eaten out in a dream world which may, perhaps, go some way towards accounting for the standard of cooking. 'I dreamt that I dwelt in marble halls', sang the Victorians, and restaurateurs made it possible for them at least to eat in them, whether at Lyons or the National Liberal Club. The eighteenth century, bemused with the Noble Savage, ate in rural Arcadias, and after the first World War a longing for stability and ancestors led first to Tudor, later to Georgian, Trust Houses. Edwardian literary gents, beloved vagabonds all, went to Soho to find consumptive Blanquettes behind the counter and, trellis framed, Italy remembered on the walls.

The last dream comes nearest to that of the original English coffee-bars. Here we sit, the post-war generation, just like characters by Raymond Quesneau or Iris Murdoch, opting out of NATO and commercial telly and Mrs. Dale's Diary and Farm Street, out of Chicken Inns and mandarin lit. and Regency drapes and country-house nostalgia, and here, as we sit, we dream we are sitting among characters by Pratolino and De Sica and Machado Asiz, heirs of the European ages and, more specifically, of Italy, where they do good design.

But already the dream is fading. Here and there, where the right bar is near the right homes, far out in Hampstead or Chelsea, the coterie has formed, the habitués drop in, and in slack periods a cup of coffee may be made to last almost as long as in France. But there's no profit in cups of coffee though you stay open till midnight, and if licensing laws won't let you make money out of drinks, then you've got to do it out of eats; the coffee-drinkers must move up to the bar, leaving the little tables for the more profitable diners. Even the most determinedly Italianate dreamland of a Chelsea coffee-bar looks just like a Chelsea restaurant if you drop in at lunchtime.

And as the coffee-bars draw nearer and nearer to Harrods and Debenhams, the clients, knowing nothing of the dream, impose their familiar patterns. Hairy calfskins may drape the bar, alcoves dimly lit suggest esoteric delights, but nice tweedy knees rub the nap off the skins and the alcove is just the place for the children, tucked out of the way. It's a nice change from the Copper Kettle, say the ladies with the little regimental badges in their hats, and if this is what they call modern I don't think it's so bad, do you?

Inescapably, the coffee-bars receive that accolade which is the kiss of death. They become nice. It's nice to drop in at eleven, between MacFisheries and Boots, nice to meet

the old school-friend there at teatime and ask for two espressi—Oh, you'll have tea, will you, I'm not sure I won't too. It's a nice place to take Mother for lunch when she comes up to see that you really do get enough to eat and that some of the students are really nice people, and nice, your own bottle of wine under your arm, to take the girl-friend to in the evenings and be sure of being recognised. It's nice to have somewhere to go after the pictures, somewhere quiet to talk about love—mostly, it's nice to have somewhere nice.

But there's no new social habit here. Coffee for tea, somewhere to sit down with decent interesting décor, this doesn't add up to a new way of life. What's happened is that a little gap has been filled, a gap that wasn't filled by the pub—too ugly, too uncomfortable, too seldom open, and, if anyone started on spirits, too expensive—or by the teashop, also ugly, also uncomfortable, and nothing nice to taste. There's a protest here, perhaps, against canteens and cafeterias, and almost certainly against mock-American snack-bars, against the corrupted adaptation of an American way of life. The coffee-bar is essentially European, and sad foreign settlers, slim portfolios under their arms, slide in among the regimental badges and the urchin-cuts. And in some measure the coffee-bar is valued for its own sake, because it excites the numbed eye, because it's somewhere to go outside home that isn't hell to look at.

Yet already—with what terrifying speed these things happen!—the coffee-bar is becoming a stereotype, a cliché. A machine, a mural, some stools with taper-legs—leatherette, but we picked them up cheap—some tables without cloths, a trolley and a Latinate name, and the new teashop is off to an O.K. start. Soon it will only need a machine, but before then we can reasonably expect British Railways to mock up a coffee-bar coach.

If the licensing laws had been different, then the coffee-bar might have brought us something really new and valuable. Drink might have ensured profits without meals, drink might have kept the schoolchildren out. With drink, the coffee-bars couldn't possibly have become nice. But with the licensing laws maintained the coffee-bars can only become, as they so sadly, so regrettably are becoming, better-looking, later-opening, coffee-drinking teashops.

## Coffee Bars

Stephen Gardiner

The coffee bar as we know it—the shelter from bad weather, dull homes, bed-sitters and ourselves, slick, polished, modern—arrived suddenly in London about two years ago. Like the milk-bar of the 'thirties, it caught on. Unlike the milk-bar, however, its sponsors tossed into the chaos, the suburbanity, the respectability of middle-class teashop design—Kensington tudorbethan, Hampstead cosiness, and Chelsea oriental—a new style which exploded like a bomb, the Espresso style.

And, again, unlike the milk-bar, it did not come from America. The sources are varied. The idea, together with the chromium-plated espresso machine, came from Italy—but that's all. There are no neon lights, no juke-box. The rest is anglicized, and the sophisticated interior to which we have become so

accustomed represents a trend (especially in exhibition design) that has been familiar to most architects for many years, and that was apparent to the layman when he first saw the restaurants at the Festival of Britain four years ago. And it is hardly surprising that the coffee bar should adopt the modern outlook—even if the result does amount to, as it so often does, no more than a very chi-chi pastiche—since its purpose, which is to attract, amuse, surprise and ingratiate itself with the customer, needs the versatility and invention that the contemporary designer can provide.

Competition between bars, however, for the most original, most attractive interior shatters immediately any obvious sense of continuity and in this way the fashion forms a kind of parody, perhaps, of the dissonance within modern architecture. It is, in fact, by



the dissimilarity of design within a general framework of bamboo, black ceilings, brick wallpapers, string murals, brilliantly clever lighting arrangements and so on that we at once recognize the style. If one coffee bar is in more or less total darkness and the next is brightly lit, it doesn't matter: that's 'contrast' or 'variety,' a different 'approach,' another 'idea': all that does matter is that we know we are in a coffee bar, we recognize the style.

All the same, under analysis, espresso design does fall into fairly distinct categories. First of all one must mention (although it has little or nothing to do with the espresso style) the Italian original—flashy, neon-lit, streamlined—the Moka bar of Frith Street and the Dinos of South Kensington. The second category is what I like to call Authentic English—architect (or semi-architect) designed, severe, sensible, 'tasteful': the Gondola of Wigmore Street, or the Orrery at World's End are among the best examples. The third is what might be termed Authentic English in its decadence—ideas used for the idea's sake, where string ceilings and black walls run wild, where a few old tricks—fourth or fifth-hand—will do, regardless of their original function: into this class I would put the *Fantasie* and *Le Rêve* in the King's Road, the *Harlequin* from the Fulham Road. The fourth category is Theatrical, the Fake—fake modern, fake Eastern, fake Indian, fake night-club, the whole box of tricks in one, a bizarre, sinister, ravishing, bedroommy set-up: *El Cubano* and the *Mocamba* of Knightsbridge, *Las Vegas* of the Brompton Road.

All four types do have, of course, a different and personal appeal. The Gondola is, for instance, most appropriate in Wigmore Street, while the *Fantasie* fills a gap in Chelsea. Knightsbridge, on the other hand, demands something far more exotic of the designer, something which caters for the night-life of madly gay 'chaps' and their girls returning from theatres and parties: *El Cubano* suits the mood perfectly. On the whole, however, I would say that *El Cubano* is more successful than the Gondola: the romantic is more successful than the classical. Architecturally, the Gondola gives you a simple, nicely designed room with a delicate, if devitalized, mural by Humphrey Spender on one wall, a counter and tables with photostated tops and an acoustic tile ceiling: it gives you 'honest-to-goodness' design without any fun. Architecturally, *El Cubano* gives you nothing. Instead, it gives you lavish décor, mystery, excitement and a sense of unreality: it is completely escapist—an exhibition designer's opium dream. It is impossible to put one's finger on any single idea and say why it's so successful: the toucans in their cages, the exotic chair covers, the bamboo screens, the misshapen sugar pots, orange juice out of coconuts, the shirt materials of the waiters run away, as the furnishings of a house might, with the whole of the architecture.

The Gondola, the *Sarabia*, the Orrery, it seems to me, are more appropriate as a setting for the casual, day-time coffee drinkers, while *El Cubano* and the *Mocamba* succeed at night; and since one of the chief

features of the coffee bar is to be open after the theatres end, the pubs close, and the cafés and restaurants shut, to succeed at night does seem to be the most important measure of a coffee bar's success as a piece of design. From this it shouldn't be assumed that I mean that the modern architect or interior designer is incapable of designing a good coffee bar: what I do mean is that he does not always understand the problem, and what he has designed—simple, plain, functional—fails because it is essentially humourless. *El Cubano*, on the other hand, does understand what is wanted and while it may be in some eyes vulgar, flashy and a fake, it does still succeed.

But if I were asked what was my idea of an ideal coffee bar I think I should say that the nearest is one I have not yet discussed—*Roy's Bar*, in the King's Road. It belongs to no category I can think of and although it shows allegiance to the espresso style, it is like, after visiting a long line of hot, sickly, chocolate and white, paper-brick lined bars, a douche of cold water. It is a coffee-bar with a difference: different because it is, in the first place, hand made, and, in the second, 'highbrow.' Its period, setting, or what you will, is not pre-war Istanbul (the shadow of a spy behind a wicker screen), nor is it Festival Modern (austere and improbable), but Victoriana which succeeds because it is natural, witty, inventive, and *not* mass produced. One may not always agree with it, but then, while one does not always agree with John Betjeman, one invariably listens to what he has to say. So with *Roy's Bar*: one notices what has been done and why it has been done. On leaving, one carries away, not a blur of second-hand tricks and artificial effects, but an impression of a well-arranged space where the suspense is maintained by some very nice murals, pieces of sculpture, an ingeniously designed centre bar, formica-marble-topped tables and painted-on surrounds and pediments to doors. Again, the whole thing is, in fact, a fake, but it is a very good one and comes off, both on the plane of suitable décor for a coffee bar and also on the plane of taste, because it makes no pretences at being anything but a fake.

So, on the whole, one accepts the espresso style; it means well; it breaks up the monotony of the London scene; it uses (and, therefore, displays) modern furniture, curtain and wallpaper designs; it shows off old materials (in particular, hardwood) in new situations and new materials (aluminium, plastics, etc.) in old situations, and if the coffee-bars are sometimes rather boring or rather flash in their design, this is hardly surprising in so new an enterprise. Given more imaginative planning, given a more economical and authentic use of materials, given more vivid and much better colour schemes (they are, generally, very bankrupt), given freer, fresher, wittier murals (e.g. 'Steinbergs'), given a few more awnings (internal as well as external), and given—perhaps—a greater number of indoor plants, I think these bars would not only be very nice places indeed to see and spend time in, but they would also have a good influence and provide another means to exhibit the importance and sense of modern design in the contemporary world.

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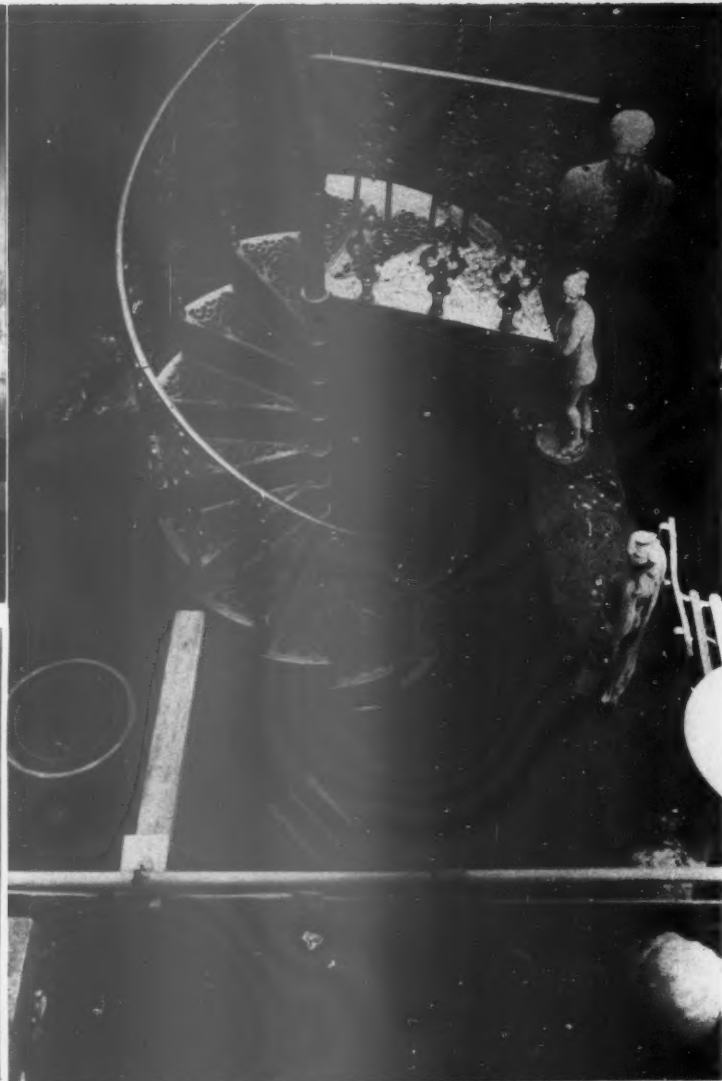
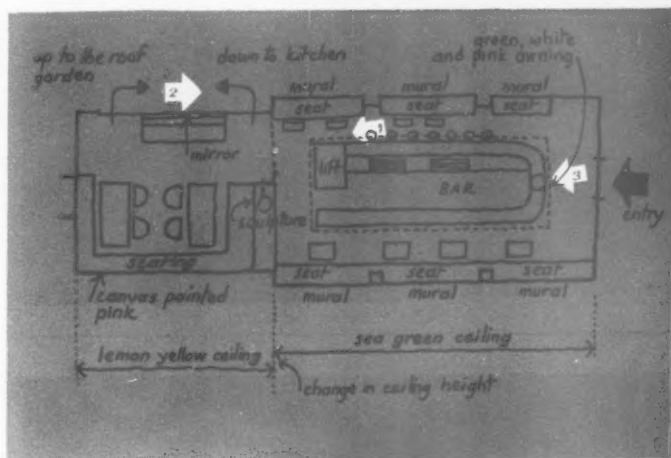
## ROY'S BAR

King's Road, Chelsea; designer Roy Alderson.

Floors: Black and white linoleum tiles.

Walls: Dado from entrance to 2nd pier, blue and white stripes.

Furniture: White and yellow marbled plastic table tops. Supports generally timber painted white. Red leather stools.

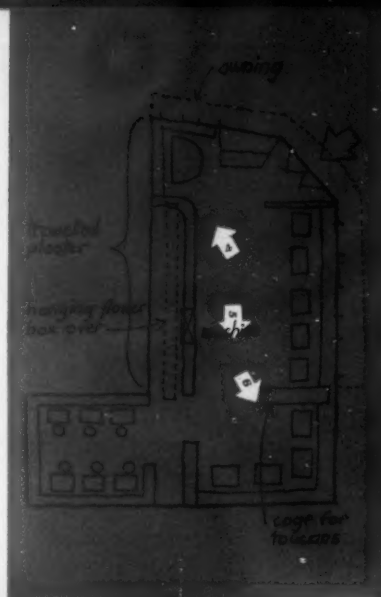


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## EL CUBANO

Brompton Road, Kensington;  
designer Douglas Fisher.

**Floor:** Black semastic tiles.  
**Walls:** White trowelled  
plaster and bamboo.  
**Ceiling:** Rush matting in  
bamboo frame.  
**Lighting:** Over bar, concealed  
fluorescents in flower  
box. Wall lights con-  
cealed behind striped  
fawn silk.  
**Furniture:** Banquette seats: black  
and yellow material on  
bamboo backing.  
Stools: straw on black  
rod supports.



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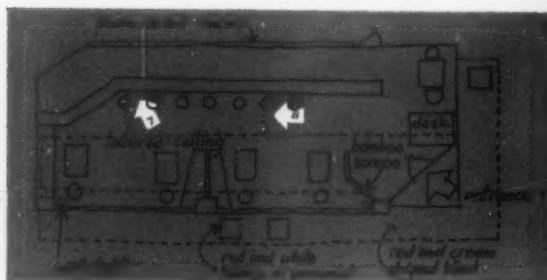
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## GONDOLA

Wigmore Street, W.1; designers Helen Low &  
Humphrey Spender.

**Floor:** Grey semastic tiles.  
**Walls:** Lemon yellow.  
**Ceiling:** White acoustic tiles.  
**Lighting:** Mainly concealed fluorescents.  
**Furniture:** Counter stools, red leather. Counter top,  
photostat drawings of classical motifs.  
Table tops, marbled plastic and  
photostats. Tables, hardwood frame,  
black rod legs. Banquette seats, rust red.



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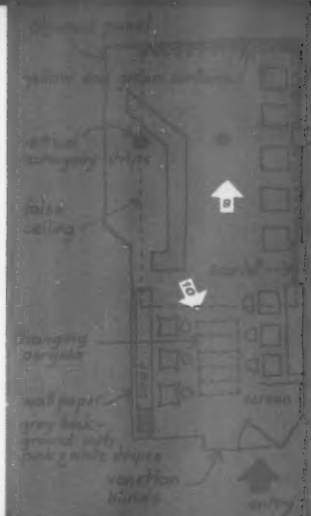




## BOULEVARD

Wigmore Street, W.1; designer William Andrews.

- Floor:** Red carpet around perimeter. White marble semastic tiles in centre.
- Ceiling:** Lemon yellow. False ceiling, dark grey acoustic tiles.
- Furniture:** Mahogany counter and table tops. Counter side, vertical mahogany strips.



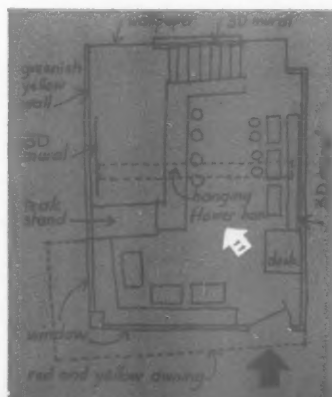
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## ARABICA

Brompton Road, Kensington; designer G. R. Cole.

- Floor:** Dark green semastic tiles.
- Walls:** Grey wallpaper with white irregular lines.
- Ceiling:** Greenish yellow.
- Furniture:** Banquette seats, dark green with cream backs, all in leather. Table tops, black and white glazed tiles in chequerboard. Counter tops, teak, with whitewood sides.



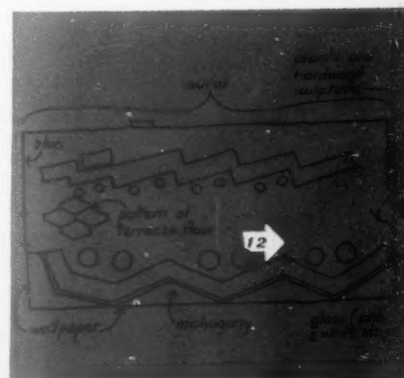
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## SARABIA

Onslow Crescent, Kensington; designer G. A. Crockett.

- Floor:** Dark green terrazzo with lozenge pattern of white lines.
- Walls:** Pink and white striped wallpaper.
- Ceiling:** White.
- Furniture:** Counter: teak formica tops, and mahogany sides. Tables: teak plastic tops, black rod supports. Banquette seats: olive green covers with mahogany tops.



12

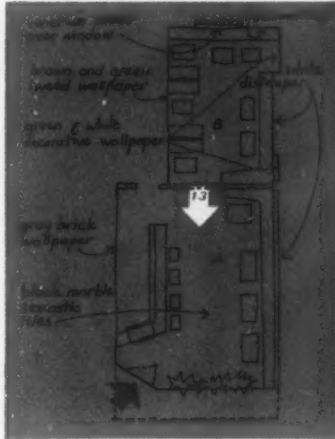


## LAS VEGAS

Old Brompton Road, Kensington;  
designer Jack Williams.

Floor: Black marbled sematic tiles.

Furniture: Banquette seating: green tartan coverings. Stools: straw seats on bent black rods. Tables: timber plastic tops on bent black rods. Counter: mahogany top, grey hardboard side.



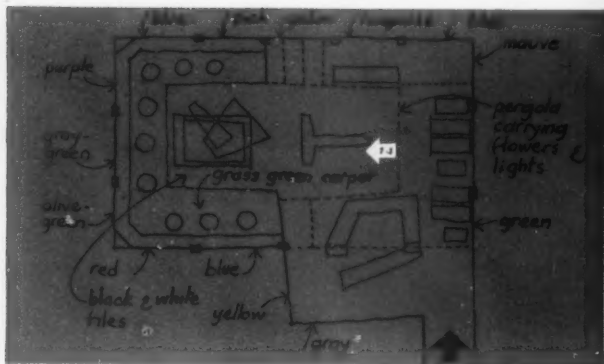
13

## THE COFFEE HOUSE

Haymarket; designer Antoine Acket.

Floor: Black and white linoleum tiles.

Furniture: Pink formica table tops with varying patterns (stars and abstracts). Black table legs. Seats: wax polished deal with black legs. Banquette seats: red plastic covered cushions. Deal backs. Stools: red plastic covered cushions, black legs, polished deal seats. Counter: plastic top, 3 inch deal strip sides. Feature: sheets of coloured transparent plastic mounted on black steel tubes, with water trickling over them.



14



## MOCAMBA

Knightsbridge; designer Douglas Fisher.

Floor: Fawn composition.  
 Ceiling: White plaster.  
 Furniture: Bar: 8 inch vertical pitch-pine inlaid with black leather and marble. Tables: Lagos mahogany inlaid with blue patterned tiles. Mahogany splayed legs, tapered. Wicker-work stools and bamboo desk.



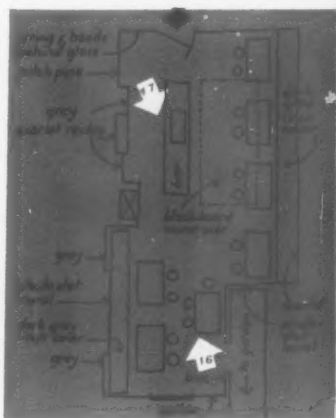
15



## ORRERY

King's Road, Chelsea; designer Terence Conran.

Floor: Grey and cream strip semastie tiled floor.  
 Walls: Photostat murals.  
 Ceiling: Plastered and painted light grey.  
 Furniture: Tables: black and white tiles, in hardwood frame. Stools: Dark green and dark red covers. Lift: Pine faced vertical strips; lift wheel exposed and painted scarlet.



16




17







Though there are surviving building traditions in North Africa which go back to times of great antiquity, architecture as an art was brought there, as in so many territories, by the Romans, who filled the fertile plains and valleys with villas and towns, and ringed their defensive perimeter with cities like Djemila whose ruins, opposite , still mark the deepest penetration of Mediterranean urbanism toward the Sahara. The Desert Gates of the Romans, the mud-walling of the Berbers who preceded and survived them, the mosques of the Arabs, and the office-blocks of the French, who succeeded them in North Africa—all are surveyed in George Kidder-Smith's scrap-book of Tunis, Algiers and Morocco, which appears on the following pages.

## NORTH AFRICA

North Africa is not commonly reckoned as one of the cradle-lands of modern architecture, and yet a quick leafing-through of Le Corbusier's *Oeuvre Complète* will show a constant preoccupation with architectural and climatic problems from across the Mediterranean. It was the projected villa at Carthage that first introduced him to the problem of sun control, and around the ill-fated scheme for Algiers there crystallized masterly solutions to local problems—but solutions that were to find equal or greater relevance elsewhere, in the treatment of buildings like the Unité at Marseilles. Since the war Marcel Lods, no longer in partnership with Baudouin, has contributed distinguished buildings to the North African scene (cf. AR, November, 1953), and Algiers has been the home of a vigorous section of ATBAT under Bodiansky. Next year, in September, CIAM will be meeting in Algiers, and many of the delegates will be seeing the architecture of North Africa for the first time.

What they will see, through eyes trained in a modern tradition that subsumes Delacroix's views of Algeria, Klee's of Tunisia, and Matisse's of Morocco, will be a landscape where architectural cultures lie thickly one upon the other, and where a native people have preserved a constructive tradition from pre-Roman times. This richness of architectural heritages stems from a succession of conquests:—Roman, Vandal, Byzantine, Arab, Hispanic, Turkish and French—each of which has occupied the progressively less-fertile flatlands and the coast, and left the Berber secure and *sui generis* in the mountainous hinterland. There, the Berber have continued from century to century to construct high-piled skyscraper dwellings of mud-walling whose architectural and social qualities will surely interest CIAM delegates when they come to apply themselves to the problems of *habitat*.



Against these same Berber the Romans defended their great wheatbowl in Tunisia and Algeria with frontier towns on the desert fringe, where ruined Djemila and other cities still preserve their street grids, their fora, some standing columns and occasionally a gate that leads from the desolation without to the desolation within. They built, too, roads, and aqueducts that supported an agriculture that—deprived of Roman water and Roman discipline—made desert of a marginally fertile country. That discipline and irrigation were destroyed by the Vandals, never fully restored by Justinian's Byzantine occupation, and finally re-formed on a new pattern—of life, religion and agronomy—by the Arabs.

The Arabs also established an architectural pattern that was to remain dominant until the arrival of the French. From the foundation of Kairouan by Sidi Okba in 671 to the capture of Algiers by General de Bourmont in 1830, Muslim culture gave an urban pattern of close-knit habitation, green with interior courtyards, and dominated by the domes of mosques; a pattern of flat roofs, blank walls and narrow streets. This was a world which was never out of touch with France and the West, for the activities of the Barbary pirates in one direction were echoed by French trading and fishing interests in the other.

The French finally entered Algiers as unwilling conquerors, and spread across North Africa, from Tunis to Morocco, as settlers whose relationship to the native peoples was politically uneasy and culturally difficult—and appears to be due for drastic revision at the present hour. This settlement, however, was economically successful, and has matched the *souks* and *kasbahs* of the Muslim towns with the office-blocks and *maisons locatifs* of their French counterparts—a vigorous constructional programme which has given exercise to the talents of Le Corbusier's old enemy, Monsieur Umbdenstock of the Bank of Algiers, as well as to some of his most brilliant disciples of the ATBAT-Afrique office.

Thus history has given a pattern of patterns in dwelling and urbanism, form and structure, which awaits not only the eyes of CIAM, but the attention of scholars and historians who must work over these patterns to see which are local and persistent, which imported and transient. A top skimming-off of the enormous architectural richness of this amazing area is given on the following pages in word and photograph by G. E. Kidder-Smith, a motorized survey—'North Africa at 50 m.p.h.' he calls it—of an area which is nearer London than is Athens, yet less well known to us than Egypt.



# North African Scrapbook\*



G. E. Kidder Smith

## MOROCCO

Morocco, both in architecture and in customs, is the most remote and oriental region of North Africa. It has the highest mountains, is the least explored, and was the last pacified. It is also the richest and fastest-growing.

Although there are traces of Phoenician and Carthaginian remains, the Romans were the first to make large-scale settlements. The farthest point of their advance into Mauretania Tingitana was Volubilis, 1, a remote outpost which reached its height as an olive-oil centre in the second and third centuries, and is the only large Roman ruin in Morocco. The Berbers harried its communications and it fell owing to its extreme isolation. (The Berbers, the indigenous race of North Africa since the dawn of history, still keep their tongue and dress, and permit their women to go unveiled, 4.) The Arab cities which grew up some centuries after the Romans left have prospered to the present day. Of the centres of North Africa, indeed, of all Islam, Fez must be counted amongst the greatest, having been the intellectual and cultural capital of the Sherifian empire which ruled, as well as North Africa, most of Iberia. Fez remains unspoiled, thanks to Marshal Lyautey's insistence that all the old cities of the country should be protected. We

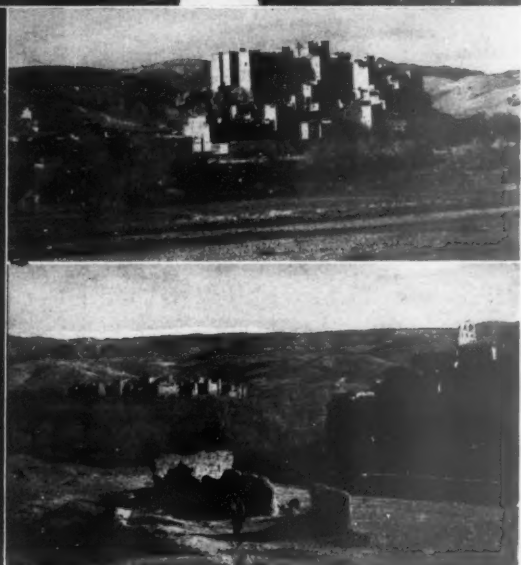
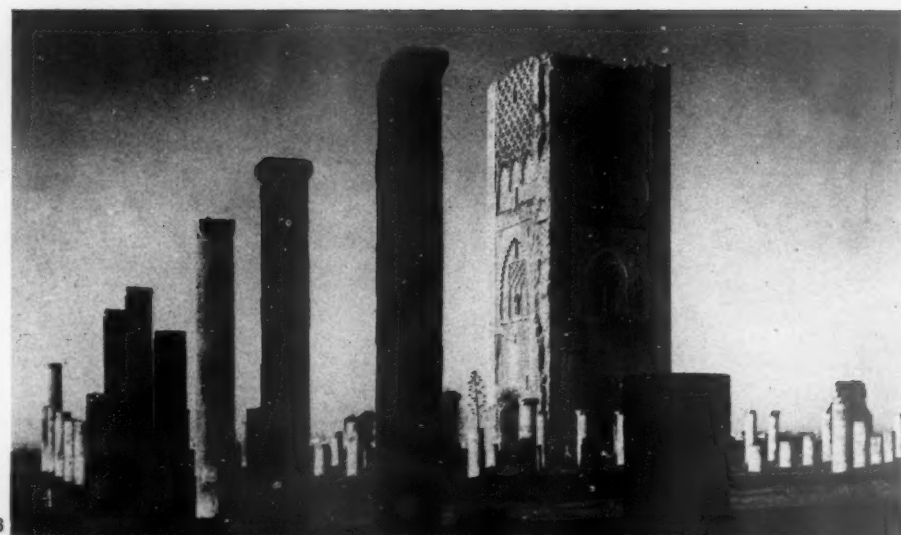
\* The tenth congress of CIAM will take place in Algiers next September.



should be doubly grateful that this heritage has been preserved intact when we see what the twentieth century has done to Damascus and Baghdad. The Place du Pacha, 2, can have changed hardly at all since the twelfth century when Fez el Bali (the Old) became a great city under the Almohades. Inside the walls is a labyrinth of broken passages, deliberately calculated to cheat the Evil Eye, which can only see in a straight line.

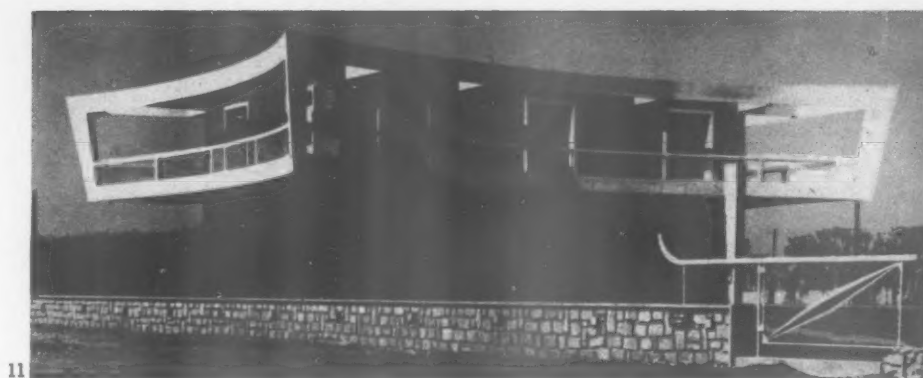
An hour west of Fez is Meknes, inferior as a town, but graced with several splendid gates, 3, in which it is interesting to see the source of influence on the American architect Louis Sullivan, whose famous Transportation Building at the Chicago Fair of 1893 was so apparently based on Moroccan examples. West of Meknes overlooking the sea is Rabat, the present capital of the country, where the Kasbah gate and wall make a strong composition on the brow of the hill, 5, and where in the twelfth century Jakoub the Victorious set out to build the largest mosque in Africa. Due to lack of money and to Jakoub's death, it was never completed and the great earthquake of 1755 (which destroyed Lisbon), shook down most of what there had been. Of the Tour Hassan, its minaret, 6, we have only a square base with a tracery pattern at the top. The Tour Hassan, the great Koutoubiya in Marrakech, 7, and the Giralda at Seville were all sister minarets erected by Jakoub. The platform of the Koutoubiya is so high that the early muezzins were blinded to prevent them from looking down into the nearby royal harem. Marrakech, where it stands, is the cross-roads of the whole north-west of the continent, as well as being the favourite winter resort of Sir Winston Churchill, where desert caravans arrive and depart, where Bedouin meets Moor and camel meets lorry.

Behind Marrakech, shielded amid the Atlas Mountains, is some of the strangest architecture in the world. The Dadès Valley connected the Sahara with the outside world, carrying the desert caravans mentioned above, and to guard against attack (and to attack the unguarded) arose a hundred miles of



fortified towns and storehouse farms. The seventeenth-century Kasbah of Taourit commands the western end of the valley, a battle-mented stronghold of some 1,200 people. To penetrate these arcane defences is to discover another

world, feudal in both society and architecture. High about one on all sides rise mysterious crenellated walls of battered mud, decorated at the top with roughly incised brick patterns, 8, 9. Construction throughout the region is limited to



11

the local clay, straw and pebbles, with an occasional palm trunk for a beam or a lintel. There is no lime, cement or any large-scale structural material, 10. Unfortunately the Atlas architecture is bound to die out as, with French pacification, the whole rationale of this way of life has disappeared.

There has been a good deal of construction since the war, particularly in the mushrooming Casablanca, which is to-day a crowded, uninteresting European city. Besides a potpourri of new apartment houses and office buildings, mostly undistinguished, there has

been much social architecture, not only here but throughout the country. A number of the better buildings in Casablanca have been designed by the young firm of Zevaco and Messina, 12, amongst which is one decidedly *outré* compared with the others, 11, which was built for a successful entrepreneur who wanted the most conspicuous house in the town. The flying framework serves the double purpose of *épatant les bourgeois* and supporting the awnings which shield the house from the sun. One small item in Casablanca which deserves attention is the sliding-



12



13

and-diving platform for the ocean-fed swimming pool, 13, a piece of virtuosity by Georges Brodovitch.

## ALGERIA

Algeria is quite different from Morocco: settled longer, it lacks the wild and barbaric quality of the latter, and its geography, people and architecture are all of a milder order. And although its

population is about the same as Morocco's, its area is five times as large.

The country has a richly fertile strip along the coast, and a thick spine of the Atlas rising to 7,500

feet behind. To the south lies the Sahara. The Romans were heavily invested in Algeria—they called the eastern part Numidia and the western Mauretania Caesarensis—and built strongholds not only along the coast, but also more than a hundred miles inland. One of the earliest of these settlements was at Cherchell, which Juba II, a Berber prince, who had been taken to Rome by Julius Caesar and given Cleopatra's daughter as a bride, raised to importance and named Caesarea. A little to the east of it, atop an 850-ft. ridge near the coast, is a magnificent example of stereotomy, the 'Tombeau de la Chrétienne', 14, 210 feet in diameter and originally 130 feet high, a royal tomb which has suffered the double affliction of earthquake and of man's mad search for inner treasure. Two-thirds of the way from Algiers to Constantine, Djemila, 3,000 feet up in the mountains, and often snow-covered in winter, emphasizes vividly by its wildness the extent to which Rome went to control the empire (frontispiece, bottom). This lonely strategic



14





15

outpost was founded towards the end of the first century A.D., probably by Nerva, but did not reach its prime until the second and third centuries. In 216 Caracalla erected the bold arch (frontispiece, top), in memory of his father (Septimus Severus) and mother. Djemila enjoyed a long prosperity, being later the seat of a Christian bishopric, and reviving politically in the sixth century under the Byzantines. While Cherchell and Djemila are typical of the coast and mountain cities, the broad upland plains of the north Sahara gave rise to the geometrically planned military city, and with it the urban gridiron which has been misused ever since. The most impressive ruins of this kind are Timgad, 15, and neighbouring Lambese, 16. On a plateau higher than Djemila, isolated and alone, these fortified cities were built to check the Berbers of the Aurès mountains. Lambese was built under Hadrian in about 100 A.D., and was never any more than military headquarters for the Third Legion and chief defence post for

that part of Numidia. However, Timgad, seventeen miles to the east, and one of the largest of all ruins, acquired a special character not primarily martial: although its first colonies were military, the city, enjoying the protection of Lambese, outgrew its original size many times over with an influx of old soldiers and pensioners who turned it into a place of pleasure and retirement, with as many as eleven public baths. In its prime this area enjoyed a far more favourable climate than it does to-day, as we gather from the Elder Pliny's *Historia Naturalis*. In the first three centuries A.D. the land was fertile, the water supply from the mountains good, and trees abundant; but the trees for increasing miles around every settlement were chopped down to feed the voracious calidaria of the baths and, finally, all natural cover was consumed, and erosion, dust and untempered heat moved in. Today, even if there were enough top soil to plant trees, goats would devour them before they were six inches out of the ground. The Ber-

bers from the Aurès destroyed the Roman city in 535; under the Byzantines it revived, but invading Arabs and the familiar earthquakes delivered the *coup de grace*, and Timgad in the seventh century relapsed into oblivion, 20. Its largest single ruin, the theatre, is quite well preserved, although the Byzantines used many of its well-fitted stones to make a fortress.

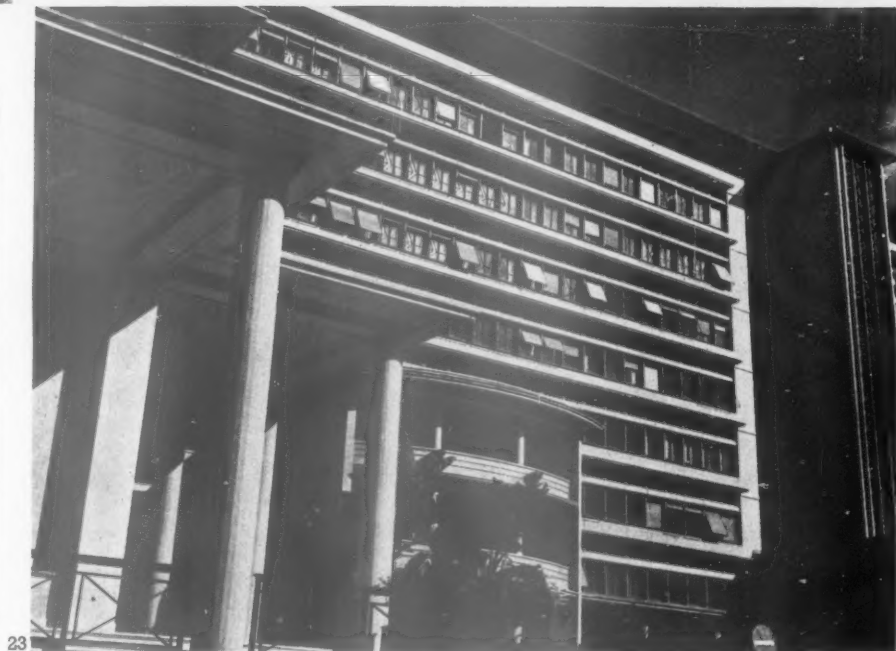
Behind Timgad the Aurès mountains rise to a height of over 7,500 feet and then drop away abruptly to the desert. Baniane is the finest village of the Aurès, where, on descending to the river bed, one is faced by the spectacular date warehouses, or *guelaa*, 17, perched on an escarpment of the valley; these are inaccessible from the river side, and protected on the entry side by the inhabitants' and animals' quarters (all the same) built as a wall around them. In the heart of the Aurès, many villages seem as much geological as architectural; Nouader is one of these. The male inhabitants, when not engaged in the zinc, lead and mercury deposits nearby, work as terrace agricul-



turalists. The houses are built as field-stone terraces, with roofs invariably flat, being much more than the tops of houses, 19. By day they serve as work-rooms for the women, and in the evening as retreats for the men. Menaâ, known locally as City of Orchards, lies across the end of the valley, piled up in *ziggurat* fashion, with the minaret of a small mosque marking its centre, 18.

The architecture of the sand Sahara, seen here at Touggourt, 21, 22, is quite different from anything we have yet seen. Sun-dried brick is used here almost exclusively, and the vault appears spanning many spaces. This friable unit material is not the most durable construction even where there is no rain, and many desert towns as the result have a dilapidated, slum-like appearance.

The modern architecture of Algeria is not extensive and the Beaux-Arts traditions dominate what there is. A significant exception is the Government-General building in Algiers, 23, one of the



first large-scale buildings of the modern movement. Designed by Jacques Guiauchin and built by the Perret brothers, whose influence can be seen particularly in the detailing, it is an extraordinary achievement for 1930. The best recent building is an administra-

tion plant in Algiers by the talented and urbane P. A. Emery for that ubiquitous American concoction Coca-Cola, the first in Algeria (that I know of) to use the *brise-soleil* which Le Corbusier invented for Algiers in his house and apartment-house drawings of 1933.

## TUNISIA

Tunisia is more intimate and civilized than either Algeria or Morocco, and its contemporary architecture and planning are the finest in North Africa. One of the handsomest sites in all the Roman empire is Dougga, 28, in the dwindled Atlas west of Tunis. Both the theatre, built by a private citizen in 169, and the Capitoline Temple, 24, 25, dedicated to Jupiter, Juno and Minerva, are well preserved. Dougga was first a Berber settlement (the Berber word *thukka* means pasture); then Carthaginians, Romans, Vandals, Arabs and French came in successive waves, and now once again it is a Berber village. The most impressive single monument of all Roman Africa is at El Djem, on the east coast—the fifth in greatness of the amphitheatres of antiquity, 26, 27, built in the third century for the inhabitants of Thysdrus, then an important olive-oil centre. Nothing else can now be seen of Thysdrus, and a mean and squalid village now surrounds it. In unsettled times it served as a fortress, notably for Al Kahena, the Berber prophetess-queen who drove all the Arabs out of Tunisia before meeting her death by treachery in 703. Like the Parthenon, it owes much of its present destruction to the Turks, who used it as a magazine, letting the gunpowder blow up with disastrous effect in 1685.

The Berbers have always lived in central and southern Tunisia, before and after the Romans, bending like the reed before the gale, while the mighty oak is uprooted. In the south-east they have created one of the strangest of vernacular architectures. The people of Matmata, an inland village, were (and are still) so destitute that, having nothing to build with, they dug large cylindrical holes in the ground, 29, and hollowed their living quarters and stables out of the sides. This troglodytic system is economical, insulated against the sun, and can not, even though there are 700 holes, be said to mar the landscape very seriously, 30. East of Matmata on the coastal plain are two



24



25



26



27



28



29



30





indigenous towns, Metameur, 31, and Medenine, with an arresting constructional technique. To guard their grain and crops—and their lives against marauding Tripolitarians, the inhabitants evolved a precursor of the Nissen hut, the *ghorfa*, constructed of parabolic stone, mud and plaster. The village is composed of squares lined with *ghorfas*, 32, stacked up to form four or five storeys, the backs serving as the defensive walls of the community. The fronts have small square openings secured by wooden doors. The upper floors are reached by highly precarious cantilevered staircases. Originally all *ghorfas* were storehouses, and occasionally workshops; but with time their function has degenerated and many have become hovels for the poorest families, while many more crumble into decay.

Kairouan, which Sidi Okba founded on the bleak north-central plains in 671, is one of the 'four

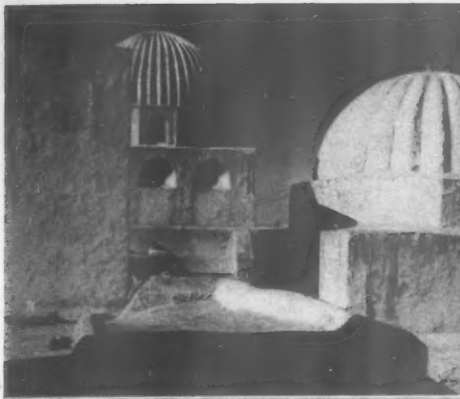
gates of Paradise' and one of the holiest cities of Islam, seven trips to Kairouan being equal to one to Mecca. The plan of the Djama Sidi Okba, 34, is the regular one of a prayer room giving on to an open court, the whole inside a high buttressing wall. Supporting the roof are several hundred columns pilfered from Roman sites, an arrangement by which the great mosque at Cordova may have been inspired. Outside the town walls is a collection of Moslem religious buildings, mosque, school and tombs, which form a highly sensitive architectural group, 35. The ribbed cupolas of the Sabre Mosque, 36, inside the city convey a similar feeling for forms in space, a feeling which finds its apotheosis on the Island of Djerba—where Homer found the lotus-eaters and Ulysses repaired after the Trojan War. The vaulted roofs of one of the larger mosques in the Djerba capital, Houmt-Souk, ripple to a

climax of explosive domes, 33.

Before taking up the post-war work in Tunisia, we should notice a little-known Le Corbusier house in Carthage, 37, built in 1928, and, although not among the master's masterpieces, one of the first to attack the problem of breaking sun while permitting ventilation. Tunisia is a land of the arch, the vault and the dome; this is true of the past and present and will probably characterize the future. When war destruction, which was much heavier in Tunisia than in Morocco or Algeria, occasioned an enormous rebuilding programme, it was only natural that the new work should reflect local resources and the abilities of local craftsmen. Tunis itself was little touched in the war, but Bizerte, for example, a well fortified and strategic port, was as much as half destroyed. Before any reconstruction was actually undertaken, a master plan was drawn up for the entire area,







after studies had made it clear that the future needs of the city could be better served if the ancient town of Phoenician origin, squeezed in between the port and a steep hillside, could expand across the canal to the level, almost undeveloped ground to the south-east. Hence a new city of great scope, called Bizerte-Zarzouna, was planned: whether it will fully materialize depends on the outcome of the present *malaise politique*. But of the many key buildings which have already been built, the largest and most important is the *Controle Civil Regional*, 38, designed by Jacques Marmey. The architect sought to recall the plastic values we have seen in the mosques. Hollow, locally made tile was used and laid up by the native masons without centering, as their

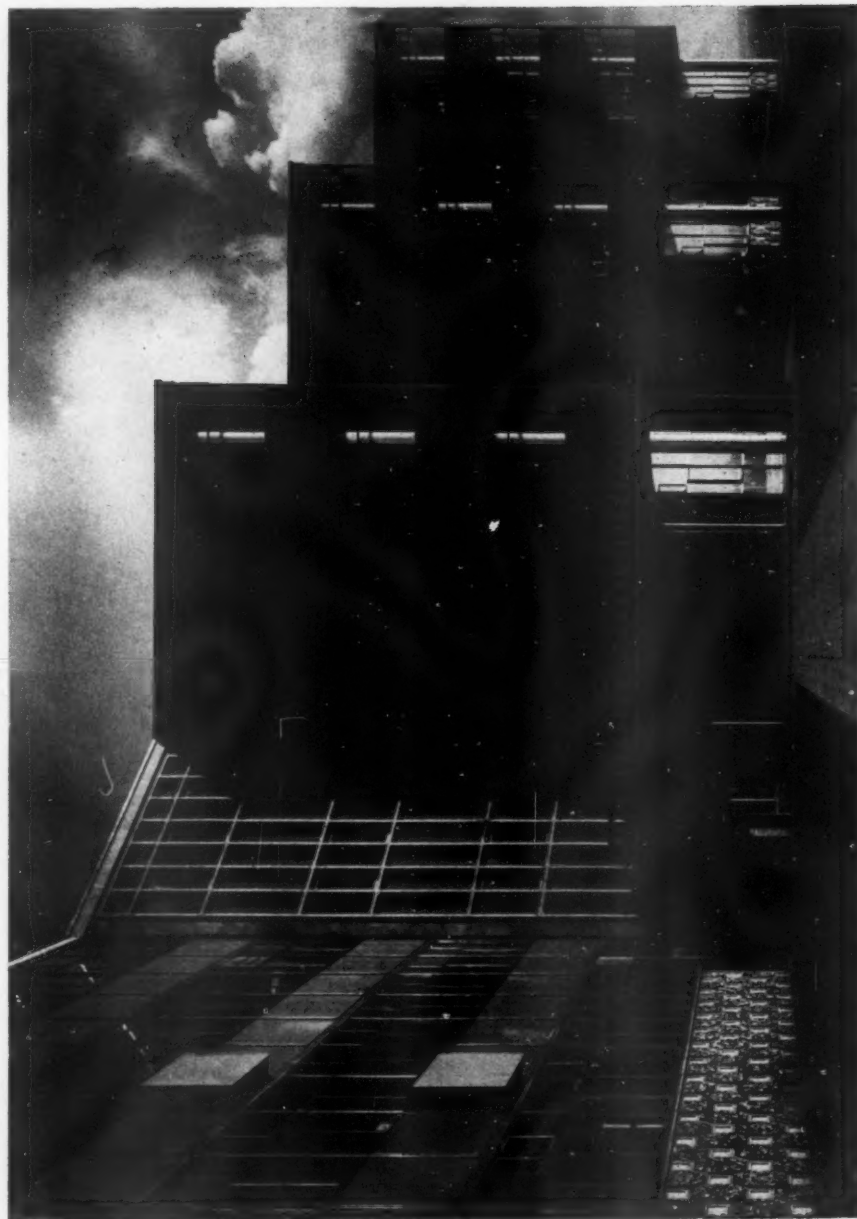
custom has always been. There is some self-consciousness in the *Controle Civil* and a lack of clarity and unity in the disposition of the several main masses. However, it is a refreshing solution that weds local materials and the abilities of local craftsmen with the spatial needs of the mid-twentieth century.

The finest modern architectural design shelters not the living but the dead, namely, the French National Military Cemetery at Carthage-Gamarrh, 39, designed by Bernard Zehrffuss and built by the Tunisian Engineer Corps. It stretched in curved stepped terraces across the brow of a hill overlooking the Mediterranean and within view of the broken columns of ancient Carthage, and is the most sensitive and inspired design of its kind I have seen.





# current architecture recent buildings of interest briefly illustrated.



1

## TECHNICAL COLLEGE AT DARTFORD, KENT

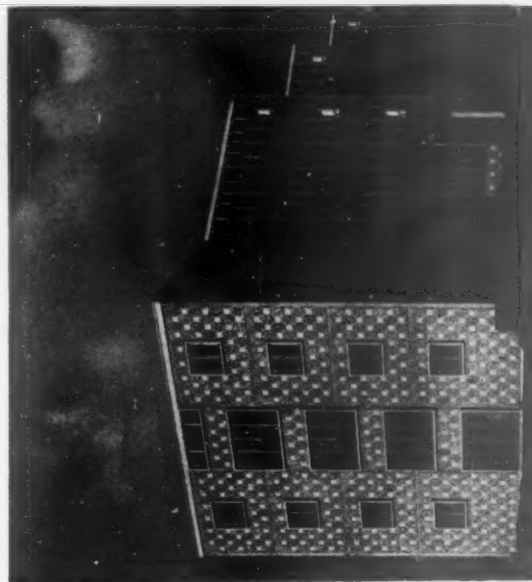
COUNTY ARCHITECT, E. T. ASHLEY SMITH  
GROUP LEADER, H. GARNHAM WRIGHT

The completed portion of the Technical College in Miskin Road, Dartford, comprises laboratories, lecture theatres, classrooms, library and ancillary rooms. A labour shortage in the district at the time the college was built led the architects to make some use of prefabrication; but they did not design for a complete use of the module.

The laboratories are contained in a 25-foot structural span, and are oriented north; access corridors, cantilevered from the

main structure, face south. Borrowed light between corridors and laboratories give the requisite daylight to the latter. At each of the junctions between the laboratory and classroom wings is a main entrance, with an external non-modular *in situ* concrete screen acting as a visual link. Across the west entrance a canopy is hung from a reinforced steel joist (of the same section as those used in the floor construction) and supported on columns made up of concrete cladding

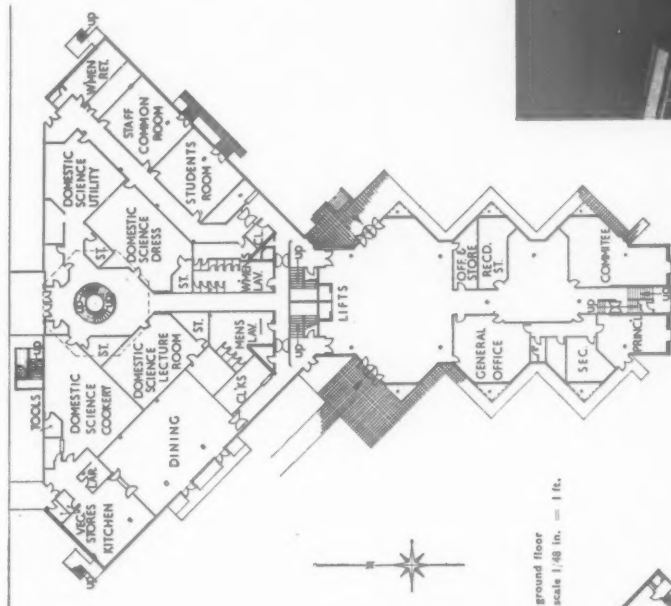
1, join of the classroom spine and one of the laboratory wings, from the north-west. 2, the classrooms from the south-east.



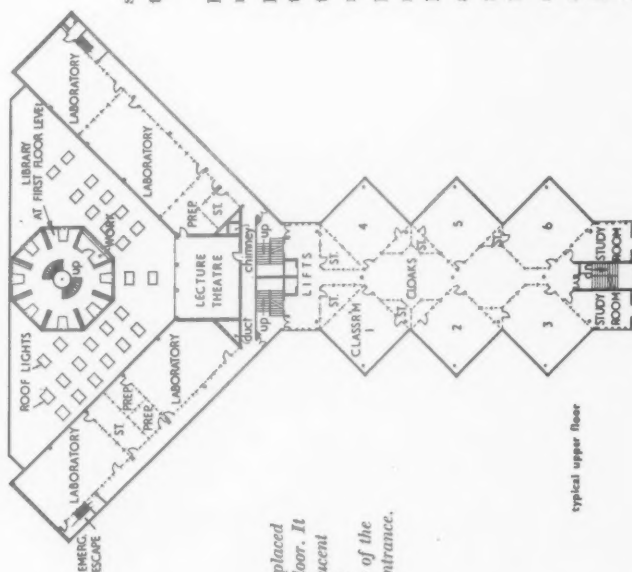
2

## Technical College at Dartford

blocks laid horizontally. In the lower panels of the concrete link, concrete screens are inserted, pierced with decorative motifs and filled with coloured glass. The structural plan of the classroom block gives a 25-foot square grid of concrete-clad steel columns. The cladding, also 25-foot square, oversails the structural grid asymmetrically, to give internal corridor space either side of the shared central structural column: this has a special advantage in that no internal cladding need come in contact with a stanchion. Floors are constructed with castellated steel beams at 8 ft. 4 in. centres, pre-stressed pre-cast concrete floor joists at 2-foot centres and pre-cast concrete floor slabs. All

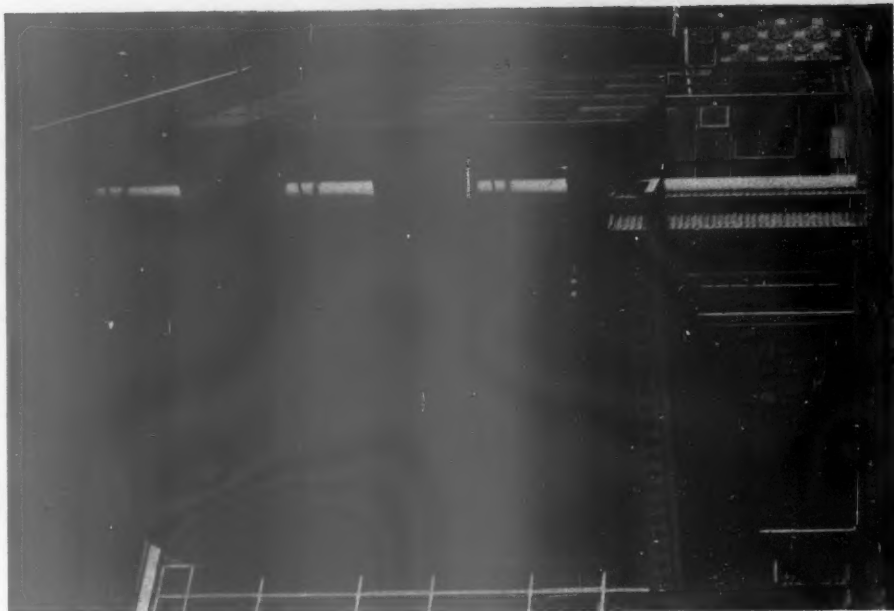


ground floor  
scale 1/48 in. = 1 ft.



typical upper floor

3, one of the showcases placed on the landing of each floor. It encloses a 4-inch translucent polythene pipe carrying rainwater. 4, a close-up of the canopy over the main entrance.



services can be accommodated in either direction in the cavities essential to this construction.

Vertical extensions are to be built in a later phase; the overall temporary roof is of bituminous felt in layers, laid on compressed straw paper-covered decking without falls. In general, the outer walls consist of non-load-bearing curtain walling—prefabricated assemblies of aluminium alloy frames, glass and cellular laminated plastic infillings. The non-modular end walls are made up of pre-cast concrete blocks, finished in local flint and Kentish rag aggregates, exposed and patterned. Indoors, staircases and ground floor partitions are cavity walls in pre-cast blocks; on all upper floors, partitions are of the same material and finish as the external cladding, and demountable. The amount of applied finish in the form of paintwork has been kept to a minimum; self-finished materials for all parts of the building were deliberately chosen. Internal linings to end walls, walls enclosing staircases and ground floor rooms generally are in yellow-grey wood cement blocks, some smooth and some rock-faced, left as made.

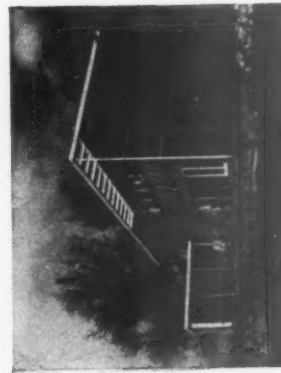


5, east elevation, with main entrance.

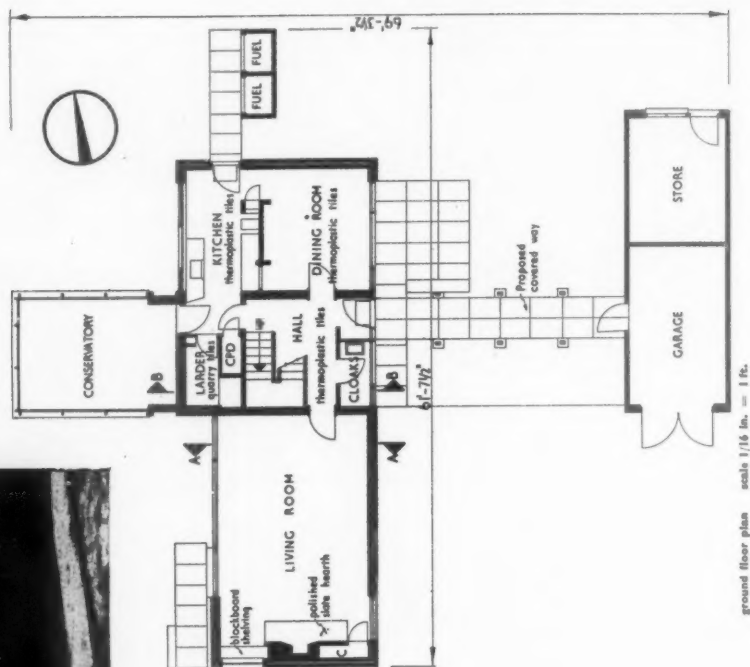
## HOUSE AT WEST MERSEA, ESSEX

ARCHITECT, RICHARD FINCH

The west elevation of this four-bedroom house (on a two-acre west-sloping site on Mersea Island) faces marshland and the Pyefleet channel. The external materials and colours were chosen to harmonize with the environment—sailing-boats, lobster-pots, etc. The brickwork is a dark red Essex stock; the vertical weatherboarding between the ground and first floors is untreated cedar. A pergola over the set-back portion of the west front is supported by a mild steel tube, 3 inches in diameter. The two non-load-bearing infills on the east side, surrounding the entrance door, are divided by the end of a transverse loading wall. Standard Z section opening lights are contained within painted softwood sub-frames. The door and the large white panel to its left, which screens the cloakroom, are faced with external ply. The continuous hardwood sills to the first floor window line and above the plinth are oiled. The weatherboarding clads the damp-proof course, softwood framing, glass-fibre insulation and skim plasterboard internal finish. Colouring for fascia boards, the pergola, softwood frames, hardwood door stiles and rails is white gloss; metal window opening lights are dark grey and the external ply panel to the kitchen is grey. Artificial lighting is tungsten: dispersive at ceiling level in the bathroom, kitchen and cloakroom, directional on the wall and ceiling of the living-room, pendant elsewhere.



6, garden elevation from south-west.



ground floor plan scale 1/16 in. = 1 ft.



## EXHIBITIONS

*It would be unfair to the organizers of Messrs. Wildensteins' fascinating 'Artists in 17th-Century Rome' to say that its most remarkable feature was the catalogue. With no more than fifty-three paintings and twenty-nine drawings the exhibition succeeded in evoking the avant-garde atmosphere of Rome in the first half of the seventeenth century, and presented the ferment of stylistic changes, contradictory principles and queer personal divergences in a selection which screwed a high-pitched visual excitement from affinity and contrast and three or four masterpieces.*

The emotional and intellectual climate of the exhibition juxtaposed Caravaggio's zestful, zig-zagging *Nude Youth with a Ram* and Annibale Carracci's poetically classicist *Christ and the Woman of Samaria*, Bernini's spontaneous Self-Portrait and two of Poussin's deeply considered Ellesmere 'Sacraments': but the catalogue added iconographical explanations and other 'asides' which afforded pleasures and illuminations of a kind which must have thoroughly scandalized those specialists of pure form who would have us believe that a good portrait is as interesting upside down as right way up.

To be told, for instance, that the pose and treatment of the figure in Caravaggio's *Nude Youth with a Ram* was a deliberate debunking of Michelangelo's superhuman nudes in the Sistine Chapel, and that the picture was so well liked at the time, but



1 was so unequivocally sensual that the Roman elite agreed to call it 'St. John the Baptist' to give it respectability, and even found the ram an acceptable stand-in for

the cross, the bowl and the lamb, which are the Saint's usual attributes, could scarcely fail to intensify one's awareness of the impudent sprawl of the smiling youth, and the pungency and appropriateness of his unsaintly 'attribute'. Likewise, the note on Paulus Bor's enigmatic picture of a girl holding a wand, 1, gave the iconographical reasons for describing her as an enchantress rather than a sorceress or sybil, and although she would have haunted one in any case, it gave her tedium a kind of grandeur to be able to see her as a plump, bored Circe, awaiting fresh victims without relish and relying with appalling cynicism on one rosy nipple to provide allurements. The pictures have gone back to their owners, but the catalogue keeps the atmosphere of the exhibition intact: it was the joint work of Denis Mahon and Denys Sutton and is an invaluable record of a generous and spirited enterprise.

One would have been grateful for the same kind of help when looking at the four extraordinary paintings by a seventeenth-century Neapolitan painter named Giuseppe Recco, included in the exhibition called 'The Flamboyance of Italian Baroque Painting' at the Arcade Gallery,



2 but little is known about this painter beyond the dates of his birth and death (1635-95). His originality lies entirely in his colour sense, and his use of an unnaturally molten looking blue is personal to the point of eccentricity. Three of the paintings depict dead fishes looming out of the dark, 2, and most of the fish are painted in Recco's flashing blue, but one or two in each picture are in an equally unnatural and fulgid red. The fourth picture is a conventional enough flower piece, but the vase is in the tell-tale, transforming, marvellous yet nightmarish blue. These pictures convey as powerful a sense of aberration as the work of Francis Bacon, but the quality of the painting is less subtle and voluptuous.

Two small studies of heads contributed by Bacon to a recent exhibition at the Hanover Gallery are, I think, among his finest achievements, 3. He has based them on William Blake's life mask and obtains two sharply distinct presences from this



3 one source, but his primary concern is to create a self-sufficient painterly substance, and the broad strokes of pink and mauve with which he establishes an equivocation between waxen mask and human flesh drag pain and loneliness and imperturbable spirit in their wake as if bits of alien matter had got into his brush.



4 Graham Sutherland's portrait of Arthur Jeffress, 4, exhibited at the Jeffress Gallery, is the fifth example of the strangest portrait convention of our time. These elaborate set-pieces constitute a twentieth-century 'grand manner' characterized by a tense informality and a collage-like relationship between a highly finished facial likeness and a slowly emerging body painted in an impressionistic manner brilliantly derived from analytical cubism.

The Italian-Swiss sculptor Emilio Sotzani who has been holding his first London exhibition at the Beaux Arts, is something of a puzzle. The surface treatment of his bronzes ranges from a cheap showiness to a refinement of colour and texture which



5

rivals the best work of Marini and Manzu. In much of his figuration there is a streak of vulgarity and rather jejune humour, but the exquisitely coloured life-size bronze of a Harlequin, has poise and depth of feeling, and if the shallow virtuosity of his other work could be forgotten one would be inclined to rank it among the best sculptures of our time.

The exhibition of American Primitive Art at Whitechapel Art Gallery contained a large number of early portraits which tended to give a better account of the clothes than the faces, and it was the venturesomeness of the mythological and historical pictures which gave the exhibition its unique charm and pathos. The five paintings which represented the art of Edward Hicks, the most famous of the American folk painters of the early nineteenth century, made it evident that he had no rivals. His work was a persistent and moving vision of peace on earth, and his *Noah's Ark*, 5, is simply another way of presenting his favourite theme, The Peaceable Kingdom, where the lion lies down with the lamb, and William Penn signs a treaty with the Indians.

Robert Melville

## LANDSCAPE

### RECREATIONAL LANDSCAPE

*It is a symptom of the watertight compartments of modern thinking that the needs of physical recreation are divorced from those of visual enjoyment.* The paraphernalia of sport can be as destructive of the landscape as that of industry and will become more so with the growing use of hard playing surfaces instead of grass and of commercial sport with its opaque fences, 1.

Some recreations make naturally good landscapes: walking and boating should be, 2, 3, but are not always so, 4, 5: golf can scarcely fail to be. But most organized



1



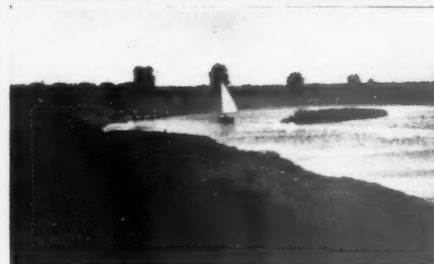
2



3



4



5



6



7



8

### recreational landscape:

1, Football stadium, Brentford. 2, Wimbledon Common and 3, the lake in Regents Park, contrasted with 4, Highgate Woods, and 5, Barking Boating Lake. 6, Cricket at Headingley, Leeds, and 7, on the green at Southborough, Kent. 8, in Holland Park, Kensington.

games must be given the right setting if they are to be more than exercising grounds. Football and cricket fields are a good foreground, 6, but they need the background of trees, 7. Hard tennis courts and running tracks have no beauty in themselves and need more drastic treatment, often the best answer being to screen completely by trees whilst keeping



the perimeter irregular, 9, rather than repeating the shape of the courts or track. The extra land needed to give the setting is grudged, but if sports fields can be combined with the wooded spaces used for the less organized pleasures of strolling, as has been done at Holland Park, 8, they can make one picture with, and add to the pleasure of both.

Sylvia Crowe

## EDITORS ONLY

### THE CORNER CHAMFER

One of the commonest and ugliest features of urban Subtopia—and one moreover that seems to have escaped the angry searching eye of author Ian Nairn—is the Corner Chamfer—that curious 45° cutting of the building lines at street corners which is imposed upon all of us—architects, building owners, and citizens alike—by some agency unknown. Colchester High Street has a typical example. At the place in question a church\* had once stood on a corner, jutting slightly beyond the general building line. The building line in High Street has since been straightened and, worse still, the corner chamfered. It all sounds harmless enough, but the results will be visually disastrous, and as far as can be seen, functionally no improvement. For what in fact has happened? A misshapen building site has been

\* St. Nicholas, 14th century, and St. Gilbert Scott, demolished 1904 as redundant, on condition that the site should not be used for the sale of fish and chips.

arbitrarily created. The building owner has lost valuable High Street frontage, and the architect is given an architectural problem which is practically insoluble in three dimensions. The citizen is driven back down the side street in order to cross the road at a reasonably narrow place, the look of the High Street at this point is ruined. . . . And all this has been devised by the local authority, and apparently connived at by the planning consultants, so that the motorist emerging from the side street into the High Street can now take this corner faster than he could before. Who started this horrible game and why do we keep at it? Is the corner chamfer an architectural legacy of Edwardian Baroque, a vestigial detail bequeathed to us by John Belcher or the Leeming Brothers, and ever since embalmed in the bye-laws? Or is it, more probably, a more recent detail imposed upon us by planners and engineers to make life easier for the motorist at the expense (as usual) of good architecture? In any case, let's have no more of it—or if we must have more of it, let us be told why: because of all the limitations—mostly justified—placed upon civic architecture this is surely the most difficult to handle in three dimensions. It would, indeed, be difficult to cite one successful solution in the whole of Central London. All the attempted remedies to be seen—curves, doubled-up angles, enlarged splay—are compromises with the proper answer for a street corner, a direct, strong and simple right-angle. 'Rubbing off the corners' may or may not be a worthy aim in education; it is certainly the kiss of death to civic architecture.

Hugh Casson

## HISTORY

### A GREAT GEORGIAN WAREHOUSE

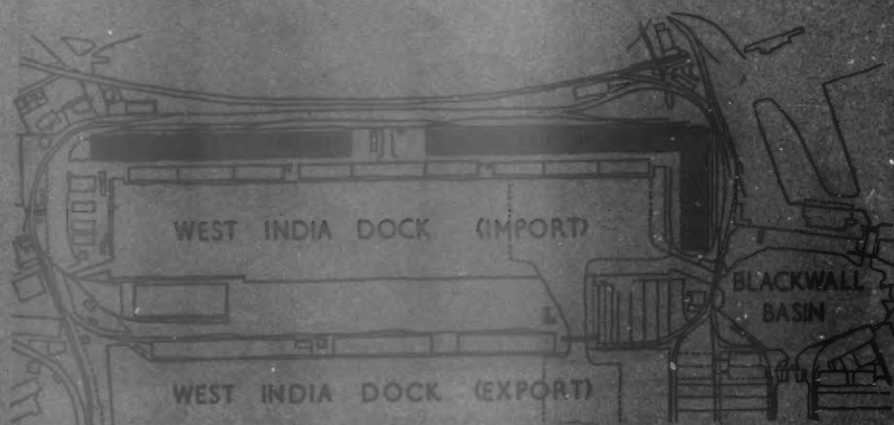
The finest of London's dock buildings were also her first—those of the West India Docks, begun in 1800 despite the stress of war and blockade, and finished in 1802 during the

brief lull in the Napoleonic war after the Peace of Amiens. The biggest warehouses were those along North Quay, on the south side of the West India Import Dock.

Who designed them has long been uncertain. Ralph Walker (the engineer in charge) has been suggested and John Rennie (of Waterloo and Kew Bridge fame) who was consultant engineer. It was not unnatural to credit engineers with an architectural design, for the functions of engineer and architect were not yet clearly separated. However, from the unpublished Minutes of the West India Dock Company\* it appears that neither Walker nor Rennie, but the architects George Gwilt and his son are entitled to the honour. The story is interesting, for great names of the period came into it. It seems that the Company's directors were at once prompt and cautious. Having invited plans for the warehouses and awarded prizes of fifty, thirty and twenty guineas to three architects named Gifford, Mason and Solway, they took second thought and referred to Ralph Walker, who consulted John Soane. These two advised against using any of the prize plans. Possibly they were not practical enough, for we find that counsel was now sought from the Thames Wharfingers. The Dock scheme, novel and bold, had drawn public attention; and famous architects sought the chance of designing for it. Among the ten who came forward were John Nash, John Soane, George Dance and the two Wyatts. They were called to interview the Board; but the Gwilt were preferred to their more renowned rivals. There is no evidence that any brought designs to the interview and the choice may have been merely of those who offered the lowest terms; yet there was nothing shoddy about the Gwilt's design. On April 7, 1800, it was resolved 'that the plans now presented by Messrs. Gwilt and Son of one stack of the warehouses intended to be erected on the North Quay . . . (with some alterations proposed to be made) . . . be adopted'.

In less than two years, at least six 'stacks' (that is, blocks) were ready; and eventually there were nine, each having five floors as well as an attic floor. However quickly the work was done, it was supremely well done. In 1921 Sir Joseph Brodribb, writing his *History of the Port of London* was able to

\* Preserved by the Port of London Authority.



Plan of the West India Docks: the solid portion shows the layout of warehouses remaining today.



say 'after 120 years the buildings show no signs of decay'.

At some time later in the century, the nine separate blocks were joined by brick buildings consistent in design with the original blocks, so that the whole length of warehouses showed as one mass. The size was impressive, in fact unique. Sir Joseph quotes the façade as three-quarters of a mile long, but according to the plan it was a trifle less—just under 3,000 feet, or almost two-thirds of a mile. That is a formidable stretch.† As the Act of 1799 (which authorized the making of the dock) provided that no one should build within a hundred yards of the boundary

† It compares with Versailles, 1,330 feet, and Caserta, near Naples, 800 feet. Wentworth Woodhouse, the largest country house in Britain, runs to 600 feet, and even Blenheim only to 850 feet in length, while the great palace of Spalato, built for the Emperor Diocletian, was but 623 feet long.

fence, nothing stood near enough to obscure the view of this astonishing rampart, this veritable fortress of mercantile enterprise.

Merely size alone, however, should not make a claim on our respect. What must earn respect is the high quality of the design. This was a commercial building. Out of the question, then, to spend time, thought and money on decoration, upon efforts to disguise it as something not a warehouse; but equally out of the question for the Georgians not to spend thought on design. One has only to compare any warehouse built after, say, the mid-nineteenth century to realize the falling away in architectural standards.

To achieve design all the elements of good building were invoked. The long façade was not made a dead straight line. It was varied

by the slight setting forward, like bastions, of some parts and the setting back of others. The parts standing out were also somewhat higher, suggesting minor towers at intervals along the face of the ramparts. This repeated emphasis served to draw attention to those essential features of a warehouse—the square 'loopholes' at which goods are delivered in and out. Excellent shapes and disposition of the windows vitally, yet discreetly, added to the total effect. Most of those of the first four floors were segment-headed, the fifth-storey windows were semi-circular. These curved window-heads were not only structurally more sound than rectangular ones (in a brick building), but they, as well as the 'towers', served to relieve any monotony of the long horizontal emphasis; and occasional tiers of circular, smaller windows further varied the pattern of fenestration.

Plain strips of white limestone as window sills, another strip making a continuous band above the third-floor windows and one forming a parapet with a modest cornice—all of white limestone—served to enliven, by their clear simple lines, the austerity of the dun-coloured massive brickwork.

At ground floor level the brick walls were made four feet thick. Joists a foot deep sustained the wooden floors which were further supported by wooden cross-members about two feet square, by cast-iron pillars and solid wooden uprights. Year after year for almost a century and a half these floors—often stacked near to the ceiling—carried thousands of tons of bagged sugar and other merchandise, first brought alongside by the old sailing ships (the 'West Indiamen'), until later in the century they were gradually driven from the seas by metal steamships.

It may have been noticed that in this article the past tense has often to be used. The reason is sad: this great warehouse is badly diminished. In September, 1940, two nights of enemy raiding transformed it to a holocaust of blazing beams and sugar. Intense heat made approach almost impossible, and when at last the charred and shattered ruins were cleared, only some six hundred feet—at the western end—were left intact. This part, listed for preservation as a building of architectural and historic interest, is still in full use for the original purpose; and enough remains to recall More's words on his Utopia 'buylded after gorgious and gallante sorte', to prove that the Georgians thought it due even to a warehouse to be built, if not in gorgeous, then at least 'in gallante sorte'.

Mr. Summerson, in speaking of the architecture of the West India Docks, calls them 'warehouses of taste and precision'. He also refers to the 'tough refinement which the early engineers invariably achieved'—a description which could as well be applied to the architect's work. Mr. J. M. Richards has also paid tribute. In his *Modern Architecture* he quotes the early dock warehouses as prophetic of modern functional architecture; and as such I wanted to introduce them to the readers of THE ARCHITECTURAL REVIEW under their corrected designers' names.

S. H. Kewall



Two views of the remaining fifth of the West India Dock warehouse. 1, the south elevation facing the dock. 2, the north side with railway access.

‡ Those of St. Katharine Dock, by Telford, which he illustrates, have not quite the grandeur of the North Quay series.

## STORIA NEO-ACCADEMICA

POETICA DELL'ARCHITETTURA NEO-PLASTICA by Bruno Zevi. Milan, Tamburini 1.1700; L'ARCHITETTURA MODERNA by Gillo Dorfles, Milan, Garzanti (Serie Saper Tutto) 1.300.

To those grounded in the all-too-solid methodology of German-American historiographic disciplines, Italian writing on the modern movement in architecture seems year by year to become more and more peculiar, but whether these peculiarities are to be traced to the common inheritance of the Crocean tradition, so difficult to understand from outside its own highly specialized terms of reference, or whether they stem from the personal eccentricities of the Italian school's star performers, is often difficult to decide.

Thus, if Professor Zevi could be written off as merely a critic who had become *engagé* in the disputes between Milanese Rationalism and Roman Eclecticism, the situation would be simple, but with the passage of time it becomes clear that he shares a basic method with other Italian writers—a method which one might call academic from the way in which it attempts to bulldoze men and buildings into tidy scholastic categories. This tendency is only too gracelessly manifest in Signor Dorfles' book, a slim volume intended for a Pelican-type circulation, where the history of the modern movement is reduced to a series of fashionably-whited cenotaphs with the inscriptions *Le Corbusier e il Purismo*, *L'Architettura Organica e Frank Lloyd Wright*, *de Stijl e Mies van der Rohe*, *Architettura Brasiliana e il Neo-Barocco*, and so on *ad ossificationem*—the roaring tale of one of the great adventures of technological man reduced to a series of stylistic labels such as the nineteenth-century academics deployed.

Professor Zevi is far more subtle than this, but the neo-Academic tendency can still be seen grinning through from behind the *engagé* polemics which are the prime disfigurement of a book that badly needed writing. The problem of *de Stijl*, and of Neo-plasticism, its formal aesthetic, is one of influence—how, when and where did it strike the Masters of the 'Twenties, what had it to offer them in 1920, in 1923, and in 1927? The answers to these questions can be embarrassing, in the case of the Bauhaus acutely so, and Zevi makes this an instrument with which to discredit *il Razionalismo* by casting Gropius as the demon king in an imaginary pantomime of the Weimar Bauhaus.

That there were personal difficulties between Gropius and Theo van Doesburg there is no doubt, but it can hardly be called good historical method to quote the van Doesburg family version at length, and with justificatory embellishments, while dismissing the Gropius account to an eight-point footnote among the appendices.

Still, these manoeuvres are obvious enough, but they are rendered possible only by omitting from the account the personality and activity of Moholy-Nagy, a figure with whom the Italian school is notoriously unable to deal, as it is also with its own Futurist

contribution, so vital to the formation of the Modern Movement. The reasons are probably the same in both cases, and can be traced back to the Academic approach mentioned above—the Italian school likes its aesthetics clean and, on the whole, Platonic. Moholy's, like Marinetti's, were dirty and mechanistic, empirical and anti-absolute, and nothing much can be done to disinfect them. Van Doesburg, on the other hand, by selective quotation can be rendered tidy and more *simpatico*.

For all that, the book is not without virtues—its bibliography and its illustrations are full of new material, and its patent bias and absurdity may put a term to the current callow tendency to regard *De Stijl* as the only important reformist influence bearing upon the Bauhaus, and open the way for a re-examination of the contributions of Malevitch, Moholy, Lissitzky, the Futurist survivors and other practitioners of dirty, live, mechanistic and un-Academic aesthetics.

Rayner Hanham

## SOLID DEVON

DEVON (Survey of England Series). By W. G. Hoskins. Collins. 42s.

A good solid book, as competent and unemphatic as a piece of engineering. All its efforts are directed to fulfilling the programme of the series, and provide a concise and intelligent county history. It has to be a standard work, as the last one was written in 1822, and for this it seems perfectly suited.

The writing is unexciting, although occasionally lit up when facts break out of the well-disciplined pages—for example that twenty-ton vessels were going to the Newfoundland fisheries as early as the 1580s. But it takes a quotation from someone else's prose, even if it is a bit overripe, to bring out all those hundreds of square miles of mid-Devon:—'where all green things are crushed between the hammer of the west wind and the anvil of the yellow clay.' However, the writing has depth which prevents it being dreary, given by Dr. Hoskins' knowledge of and sympathy with Devonshire: and one wouldn't chide the book with failing in what it never set out to do if the author hadn't already made, for example, Leicestershire, come to life with just those facts which seem to immolate him here.

There is quite a lot of architectural information by-the-way; enough to make possible a correlation with the Buildings of England. That would yield no fruit to the searcher after malicious comparisons. The only divergence is among the interminable Victorianized churches, a subject badly in need of a little fantasy. There is also a section on building materials which is first-rate and should be repeated immediately county by county, before rural 'slum clearance' finally removes the evidence.

Ian Wain

## ART AND THE HOUSE OF TUDOR

TUDOR ARTISTS: A Study of Painters in the Royal Service and of Portraiture on Illuminated Documents from the Accession of Henry VIII to the death of Elizabeth I. By Erna Auerbach. University of London: the Athlone Press. 70s.

The name of Harry Blankston, who did

decorative painting at Hampton Court for Henry VIII, has rung a faint bell with students of Tudor art ever since (and only because) Ernest Law quoted some accounts relating to him in his history of the palace, published in 1890. But who was he? Miss Auerbach has found out. He was a German from the Cologne district, lived in Bermondsey and bequeathed a triptych to the church there. His daughter married a son of Galyon Hone and one of his friends was Robert Shynck. Hone, the glazier, and Shynck, the moulder, also worked at Hampton Court; and Shynck lived at Bermondsey. All were foreigners making a comfortable living down on the south bank by manufacturing 'antye' work of various sorts for the king.

That is one unsensational and quite typical result of Miss Auerbach's pursuit of truth in the Record Office, Somerset House and elsewhere. There are plenty more—indeed there is scarcely a page without some scrap of fresh investigation, some tiny new discovery. Unsensational they are, these discoveries; the sad thing about research in this field is that however much one may turn up about the lives and employments of interesting people like Blankston or Hone, Lizard or Modena, Serots or Gower (and Miss Auerbach has something new on all those and dozens more) the stubborn fact remains that their works have, except in a few cherished instances, disappeared. Any general book on Tudor art must tend to have much the same illustrations as any other, and it was, no doubt, this melancholy fact which induced Miss Auerbach to devote a preponderance of space and nearly all her plates to a particular class of Tudor painting which has hardly been published at all—the royal portraits and other compositions painted on official documents. Here, however, time's irony strikes again. The material is present, but where are the artists? Nowhere. Miss Auerbach can describe a whole series of plea-roll initials, some of them remarkable from both the artistic and ideological points of view. But she cannot tell us who painted them. And so, what with the artists whose works are lost and the works whose artists are lost one begins to wonder if there is much hope of ever constructing a solid picture of the arts in Tudor England.

Perhaps there is not. But what certainly can be done—and Miss Auerbach's book is, to say the least, a conspicuous milestone on the way—is to demonstrate almost the whole pattern of Tudor patronage of the arts. If we have been accustomed to think of Tudor painting in terms of Holbein and post-Holbein portraiture against a Wyngaerde background, Miss Auerbach causes us to think again. Heraldic illustration, the devices of the office of revels, the extraordinarily diverse employments of the Serjeant-painters (on whom there is a valuable appendix)—all these show us, even if only in documentary outline, a world in which nothing which was thought worth doing was done without its appropriate formal gesture—a gesture which required the artist's professional help and, of course (or where would the art historian be?) the due inrollment of his fee.

John Summerson



## TEXTBOOK ON SERVICES

NEW WAYS OF SERVICING BUILDINGS.  
By Eric de Maré. *The Architectural Press*. 30s.

This companion volume to 'New Ways of Building' covers lighting, heating, hygiene and sanitation and interior finishes. The section on artificial lighting is, indeed, the best review of this subject I have yet read. Much of this material is drawn from recent work by the Building Research Station which has not hitherto, as far as I am aware, been published in comprehensive form. The special merit of this section lies in the emphasis it gives to the, as yet, little understood physiological effects of lighting on the human being and in its treatment of lighting as an integrated part of the architectural conception. This subject is, indeed, something of a blind spot in contemporary design and one welcomes a résumé of current knowledge of this calibre.

It would be churlish to judge the rest of the volume by its failure to maintain such a high standard, for the other authors have had no such background of prior research on which to draw. I should like to have seen the sections on heating and hygiene and sanitation dealt with more from the physiological aspect. A good deal of research has been done on the effects of the heating environment on the human being and a résumé on these lines would have made a fitting companion to the lighting section and have provided a more satisfying *raison d'être* for the book. If one accepts the textbook layout of the remaining sections, however, and the title after all implies a textbook, there is plenty of meat here.

Dex Harrison

## STANDARD HISTORIES

ART AND ARCHITECTURE IN FRANCE, 1500-1700, by Anthony Blunt; ARCHITECTURE IN BRITAIN, 1530-1830, by John Summerson. Both *Pelican History of Art*. 42s. each.

It would be both laborious and tedious to review Mr. Summerson's and Professor Blunt's new *Pelican Histories* in the kind of detail they really deserve; it would also be rather gratuitous in the former case and virtually impossible in the latter. Both are fated to become standard works in their fields, and neither is likely to be displaced for a score of years or more, whatever apparatus of marginals, sidechangers and glosses they may accumulate in the meantime, and whatever private reservations may be entertained by those who know more about some small corners of the fields they survey at large.

But the reviewer can, perhaps, say something about their probable status and utility as standard works—especially now that they have been in use as pedagogic instruments for a year or so. Mr. Summerson's book replaces a squalid platoon of battered veterans which have done noble service but are now played out. Its peculiar virtue is most readily seen by comparing it with its long awaited contemporary and essential complement, Mr. Colvin's *Dictionary*. The latter logs the documentable facts, without regard to their relative historical importance, but Mr. Sum-

merson recounts a historical narrative, and in the interests of his story is prepared to drop a few facts overboard—Sir Henry Wotton, for instance. But one might truthfully say that his historical narrative is the better for this, especially since he thus has room to bring into his narrative certain historical links who are commonly overlooked—such as the part played by the unspeakable Benson in launching the ineffable Palladians. Similarly his chapter on Gibbs tends to rejoin what the partisans of Wren, on the one hand, and Burlington on the other, have seemed determined to keep asunder. For its fluent and comprehensible narrative of English Classicism this book will fit comfortably and instructively into the pattern of architectural teaching.

The field which Professor Blunt sets out to survey is one less well worked even in France, and the need for his book is therefore even clearer. In architecture it replaces Blomfield, and provides a gloss on the boredoms and contradictions of Hauteceur—and if it did only that it would be worth every penny of two guineas. But in painting, sculpture and the graphic arts it enters a field where there is nothing much to replace. It provides a guide to what, in the minds of most English students, is a blank period in the cultural history of Europe, and many will come upon figures like Bellange, Pilon, Girardon and Desportes with pleasure as well as surprise. But, above all, this is the first of these *Histories* which achieve their founder's ambition that each volume should treat the visual culture of a period as an integrated whole, and not as a number of independent arts.

Reynor Banham

## Shorter Notices

THE FUTURE OF CITIES AND URBAN REDEVELOPMENT. Edited by Coleman Woodbury. *The University of Chicago Press* (U.K.: Cambridge University Press) 1953. 67s. 6d.

At first sight, this book is promising: it has a list of distinguished contributors: the editor himself, Catherine Bauer, Henry S. Churchill, Richard Dewey, G. Holmes Perkins and others. It also has impressive section headings: 'essays on redevelopments: goals, design and strategy'; urban redevelopment in relation to industrial location, local government organization in metropolitan areas and 'the urbanite'; 'the background and prospects of urban redevelopment in the United States.' The book is supposed to present the findings of that part of the 'Urban Redevelopment Study,' carried out in Chicago from 1948 to 1951, which dealt with general redevelopment problems and their causes, as well as with planning policy. But what was this 'study'? Apparently it consisted of a lot of random reflections, a few of which are brilliant, and many of which are banal; of a collection of miscellaneous facts; of an especially clumsy manner of repeating the obvious, and the inability to call a spade a spade. And where are the results? It is difficult to find them amid the verbosity spread over 764 pages. When the reader comes across leads, he is not able to follow them up; despite its bulk, this tome includes no bibliography, only a few lists of relevant research projects and their findings.

It seems that 'enlightened opportunism', one

of the main themes of this book, requires that form of presentation. Although a large part of the Chicago study was supposed to be devoted to questions of policy and value judgments, the book is an apology for evading such issues. In this frame of mind, it was hardly possible to reach any conclusions. For example, on page 749 Mr. Woodbury finally says: 'Although it may seem trite, I believe it is a true observation that urban communities through their governmental and less formal institutions either make some headway during the next few years toward consolidating gains and developing some over-all conception of their future pattern and objectives, or else they begin to lose ground in many of the sectors in which they have made the most headway during the decades just past.' In other words, the future of cities will either be better or worse than the present.

R.G.

L'ART MOSAN. BIBLIOTHÈQUE GÉNÉRALE DE L'ÉCOLE PRATIQUE DES HAUTES ÉTUDES VI Section. Edited by Pierre Francaest.

This is a publication of considerable interest to the art historian. It is the report in over 200 pages of more than twenty papers prepared by distinguished specialists (Grodzki, Hahnloser, Homburger, E. Meyer, Charles Oman, Pradel, Verlet, Vollbach, etc.) in connection with a conference held in Paris in 1952. It deals with a great many aspects of medieval art in the Meuse Valley. Only two papers are about architecture: Paolo Verzzone's on Westworks and the cult of the angels and Elie Lambert's on the Chronology of Tournai Cathedral.

M.P.

## Books Received

FORTIFICATION IN ISLAM BEFORE A.D. 1250. K.A.C. Cresse wall. Geoffrey Cumberlege. 8s. 6d.  
BETTER BUILDING BY INSULATION AND DAYLIGHT STUDIES. 1 and 2. F. Tonne. Karl Hofmann Schorndorf, Stuttgart.  
CONSTRUCTIONAL STEELWORK SIMPLY EXPLAINED. Oscar Faber. Oxford University Press. 12s. 6d.  
THE LESSON OF JAPANESE ARCHITECTURE. Jiro Harada. The Studio. 30s.  
BUILDING—THE EVOLUTION OF AN INDUSTRY. P. Morton Shand. Charles Ciora. 15s.  
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# SKILL

A MONTHLY REVIEW

OF BUILDING TECHNIQUES & INDUSTRIAL DESIGN

1 interiors

2 design review

3 techniques

4 the industry



*Detail of fibrous plaster ceiling in snack bar, shown above.*

## 1 INTERIORS

### HOTEL AT COVENTRY

*Architects, W. S. Hattrell and Partners in collaboration with W. J. Witham, Chief Architect, Ind Coope and Allsopp Ltd.*

The Leofric is the first hotel built with British capital in this country since the war. The Coventry Planning and Re-development Committee laid down that its elevations to Broadgate and the Precinct should repeat those of Broadgate House opposite. Some liberty was allowed with

window design, but the main structural layout, floor to floor heights, plan set backs and facing materials were to be repeated exactly. The two main entrances are from Broadgate in front, at ground floor level, and from the car park at the rear, at lower ground level; both are in the centre of the long side of the building and open into foyers with lifts and stair-cases giving access to all floors. The main reception area is on the first floor. The 100 guest bedrooms, 70 per cent of which have their own bathrooms, are on four floors. Services are distributed thus: boiler house, cellars

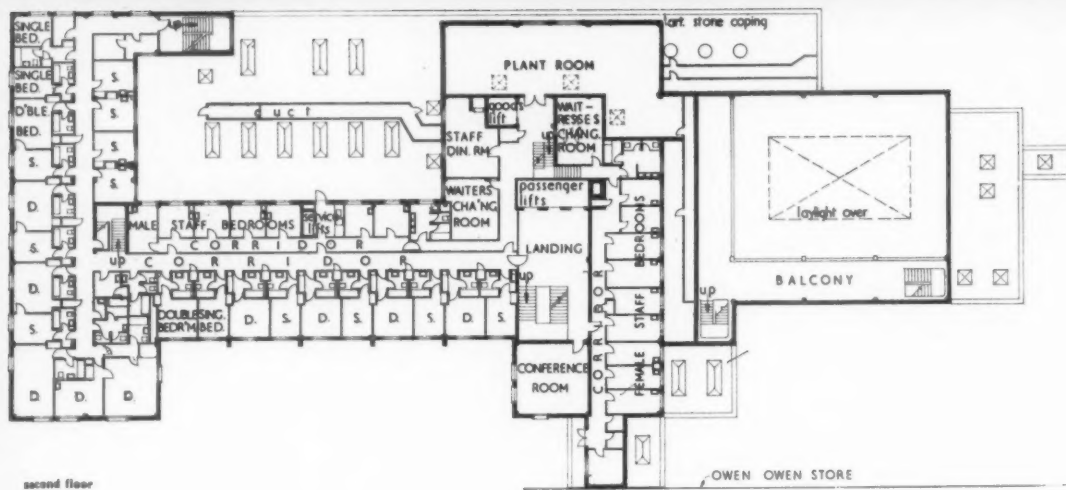
The Assistant-in-Charge for W. S. Hattrell and Partners was G. W. Hammond; Assistants: F. R. Mutch, J. Siedlecki, J. A. Metcalf and R. E. Eckersley. Assistants in the Architects Dept., Ind Coope & Allsopp Ltd., were A. G. Drew, B. R. Davis, D. M. Rickard and R. L. G. Carter. Consulting architects (special bedrooms) Ward and Austin.





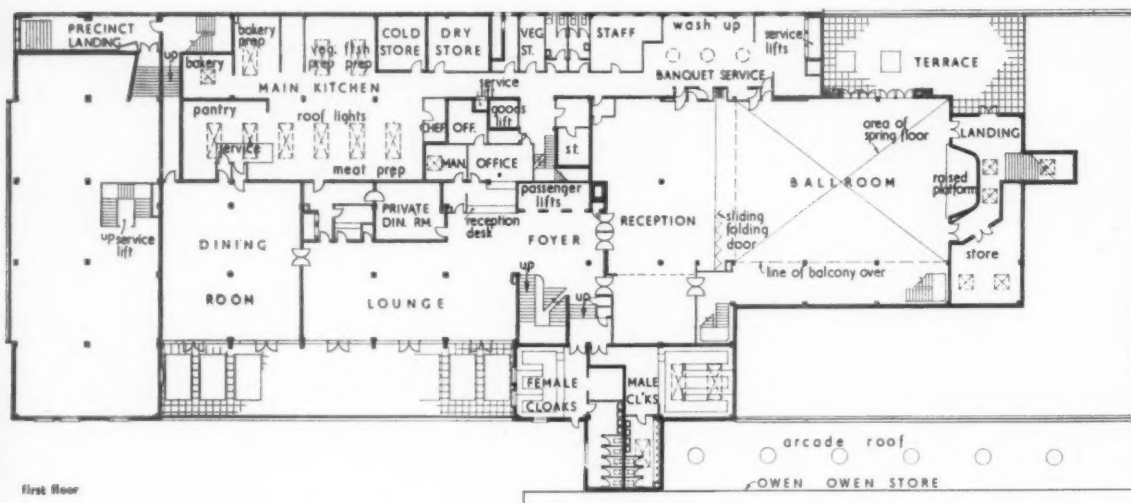
## HOTEL AT COVENTRY

Left, a view of Broadgate from Coventry Cathedral spire. Between the hotel and Broadgate House is the pedestrian way leading to the Shopping Precinct. The only feature of the two balancing façades not essentially similar is the window treatment.



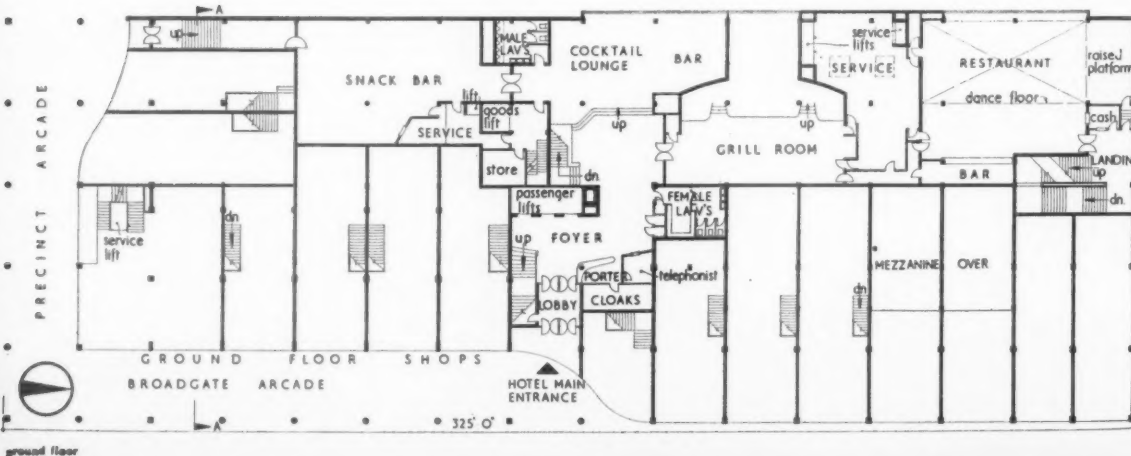
## foyers

Left, the main foyer from the Broadgate entrance doors. Paneling is in solid African walnut, ceiling terra-cotta, floor in cork tiles with a black, blue and grey marble finish. Right, the hotel reception, with lift entrances, on the first floor. The counter has a black hide top with the bedroom plan inlaid in gold; decorative plaques above mask the extract ducts. The ceiling is of heated metal panels, with small lamps to sparkle.



## cocktail lounge

Left, the wall at the opposite end from the bar, bearing Guy Egan's fantasy on Broadgate Square. Right, the bar corner, showing the two-level planning of the room, which extends throughout its length. The counter wall is covered with Roger Nicholson's 'Attica' design, in terra-cotta, sky-blue and lime-green. Artificial lighting has been kept to a subdued level.



## grill room

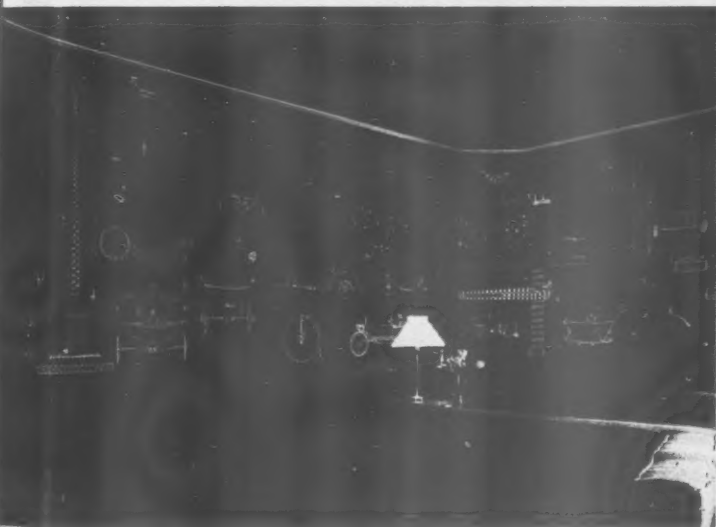
Left and right, views from opposite ends of the lower level. Air vents are inset in the ceiling and over the picture-hung wall. The carpet on the lower level can be removed to disclose a maple floor for small dinner dances. The lower set of balustrade lights are demounted on these occasions.

and laundry in the basement; administration, kitchen and staff rooms on the first floor; plant-room, and staff changing- and bedrooms on the second floor, and the lift motor and tank room at roof level. Shops are embodied in the building, fronting on the Broadgate and Precinct Arcades, all occupying two floors, either ground and

first or ground and lower ground. At the north-west corner, the lower ground floor contains the revived 'White Lion' public house, the original premises of which were demolished for the building of the Precinct Arcade.

Chief constructional elements are a reinforced concrete frame, with *in situ*

concrete floors, staircases and roofs. Cladding and internal walls are of brick. Generally tungsten lighting is used, never hidden but shaded according to requirements. Lighting in public rooms is concentrated in splashes or pools of high intensity, for use or for effect. In the perforated metal ceilings of the ground and



**ballroom**

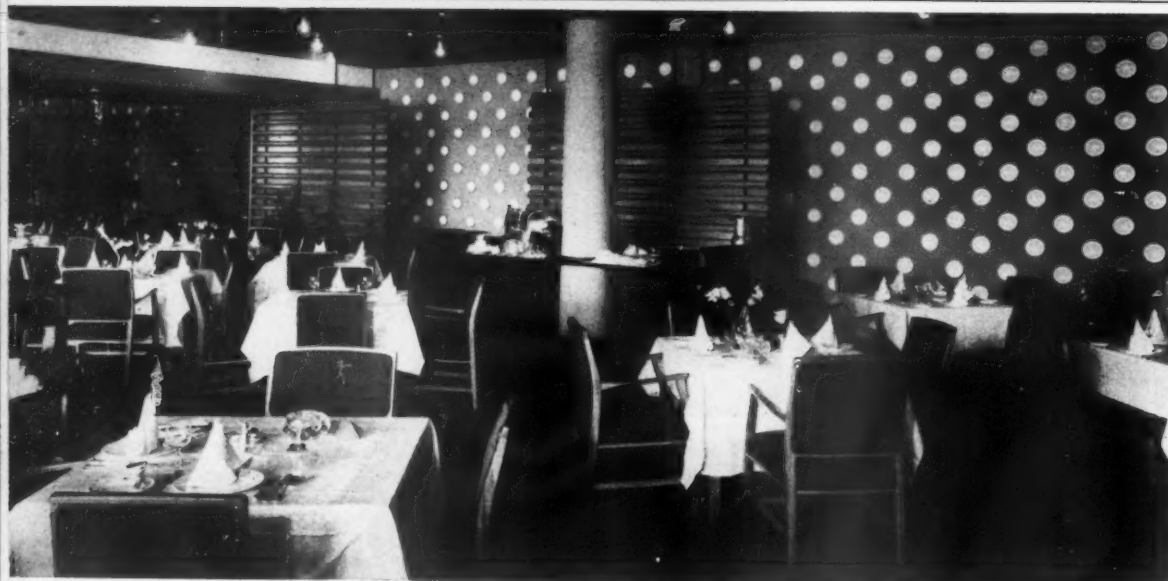
Left and right, general views looking towards opposite ends. Panelling is Australian black bean below 8 feet, except around the band platform, which is Gaboon mahogany with Brunswick green dined insertions. The inclined panel is in beech. The laylight in the curved fibre board ceiling is in mahogany and has four-colour lighting battens behind.

**lounge**

Left, view looking towards the reception foyer. Walls, above African walnut panelling are in mottled grey mural leather cloth. The general colour scheme is a monochrome of grey, the maroon carpet adding warmth. Windows face directly on to Broadgate Square. Right, cutout of a specially-designed cabinet incorporating television and showcases.

**dining room**

Left, the dining room, or French restaurant. The wall decoration consists of white dished plaster plaques with the edges finished gill. The receptionist's desk built about the pillar near to the entrance is constructed of African mahogany with silver bronze balustrading.



first floor foyers are 24-volt car head lights. The ballroom is lit, in the main body, by six chandeliers on dimmers, fluorescent cornice lighting and colour battens on dimmers in the lay-light, supplemented by wall brackets in the balcony and semi-flush fittings in the soffit of the balcony. The carpets, except in bedrooms and special rooms, are of one pattern through-

out, and made in two colour schemes. Each bedroom floor has a separate 'floor colour,' affecting everything from bedroom doors down to key-tabs, bed-linen embroidery, and w.p.b's; these are, from the second floor to the penthouse, green, red, blue and gold.

In the 'White Lion' public house, an attempt to recreate the cosiness and

intimacy of Victorian pubs was behind the beer handles, brass spiral and woodwork of the public bar, and the mahogany, red leather upholstery and copper table-tops of the men's smoking room. The squareness of the lounge has been relieved with a 'dynamic' ceiling, the flat surfaces mushroom and the inclined ones primrose and purple with off-white stripes.





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### **Re-building of the City of London**

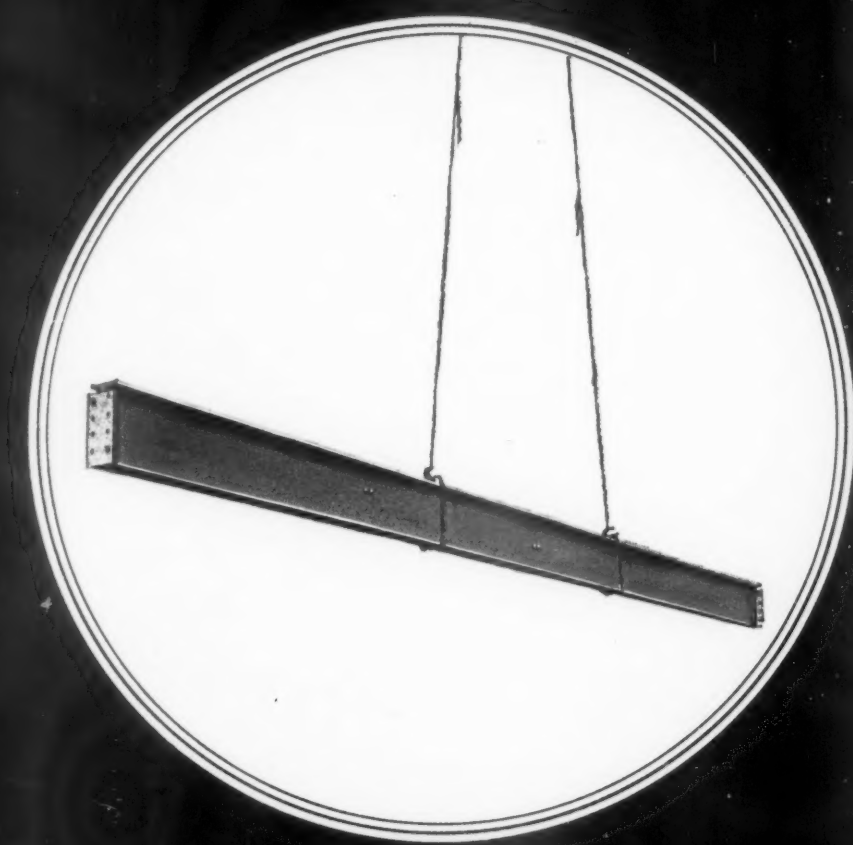
Dorman Long are playing an important part in the re-building of London, and new buildings in the City alone account for more than 26,000 tons of Dorman Long structural steelwork. Other buildings in London at present planned or completed will use a further 40,000 tons of Dorman Long steelwork.

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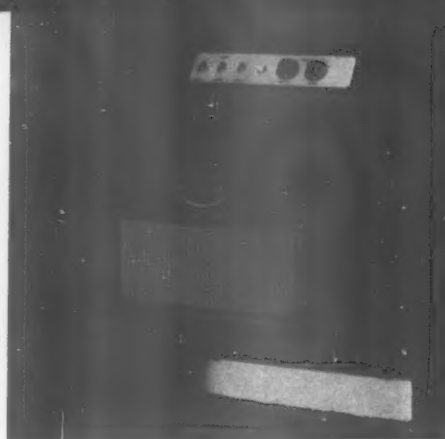
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**B.C.S.A.**

**bedrooms**

Left, the standard bedside unit with a switch panel for controlling the lights and the wireless. In each case, the telephone is on a wall bracket, leaving the table top clear. Right, a standard bedroom, showing the 7 foot 6 inch cantilevered dressing-table.

Carpets are grey and bed-covers mustard; there is one dark green easy chair and one red dressing chair in each bedroom.

**penthouse**

All non-standard bedrooms and suites are in the penthouse. Lighting is fixed, as opposed to the adjustable wall bracket fitting in the standard rooms. Left, the drinks cabinet is seen open; the closed cabinet to its left contains a writing desk.

**public bar**

Left, the specially designed porcelain beer pulls and, centre, the public bar in the 'White Lion' public house. Woodwork is traditional brush graining, the floor finish is cork tiles and the ceiling varnished lincrusta. The built-in advertising matter and decorative lettering, right, behind under-counter glass storage provides splashes of colour.

**2 DESIGN REVIEW****CROWN WALLPAPERS**

Manufacturers of low-priced wallpapers cannot now afford to ignore what they call contemporary designs. It is to the credit of Crown Wallpapers that their Supplementary Range 1954-55 displays many of the trends that have built up the tradition of wallpaper design—Renaissance, Chinese, Regency and Sentimental—as well as contemporary. The problem of giving the public those

modern designs that it is shy of but does not want to miss is essentially the same as the problem of the 1954 presentation of Willow-pattern. The present collection shows an increasing awareness that wallpaper must be designed to form a background, though lightness of treatment is too often confused with the use of pastel shades.

There is one paper of an excellence that should make it a classic. An apparent

texture is created by means of line, and a very small repeat. Line and dots are so skilfully used that this machine-printed paper, 1, gives a texture with the richness of a hand print. The pattern is printed in two weights of white on grey, buff, or green. L 46564-6.

2, is an excellent example of simple linear design: it has alternating stripes of ivy and seaweed. The formality of a stripe is modified by the simplicity and charm of the drawing. It is very gay in red and green on white and in grey and green, much less in character in white on a pink background. L 46582-5.

In 3, a pattern in the Flemish strap tradition is carried out in an equally



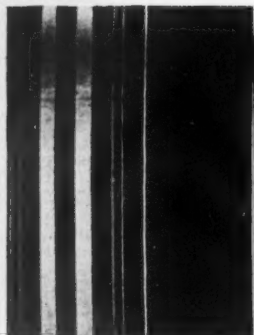
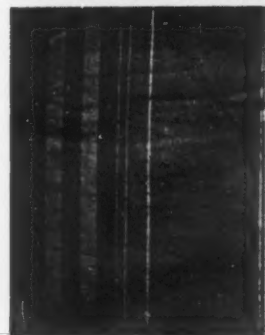
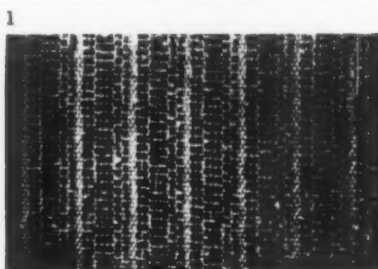
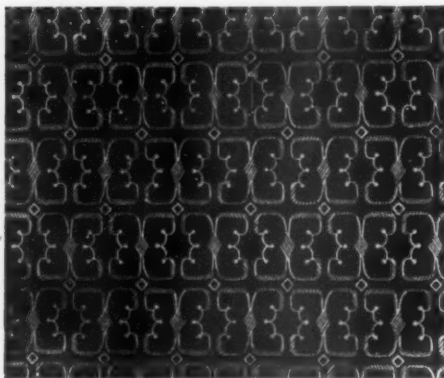
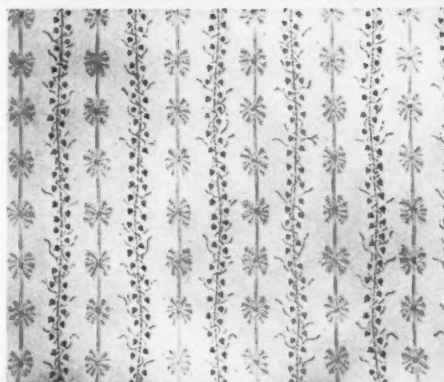
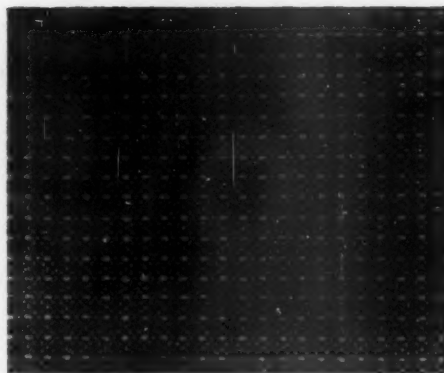
forthright way in appropriate colours. Wallpaper design is an art that can carry very subtle nuances. It is a relief when the designers are allowed to take a rest from these and produce a simple pattern in one colour on another. Viz., T 71768 which is a narrow white stripe about 1½ inches apart. KW 76904.

4, is an exuberant design of fish and seaplanes with washable finish for nursery or bathroom. Different strengths of line are used in masterly combination with the colour blocks to give the maximum interest with the minimum of complication. A 29207.

The version of Willow-pattern, 5, printed in pale (not 'willow-pattern') blue on a white satin stripe, does make the most of a small room in point of elegance, and form a gleaming background for polished furniture. Had the motifs been spaced about slightly further this would have been a distinguished wallpaper. Their close spacing to give an 'all over' effect is, I think, a further example of an exaggerated feeling for the 'contemporary' to use that over-worked word yet once again. The designer overlooks the effect of the satin stripe which had in fact taken care of the close-repeating effect. A 25081.

Diana Rowntree

Five papers from Crown Wallpapers' Supplementary Range. 1, L 46564, 2s. 11d. per piece. 2, L 46582, 3s. 3d. per piece. 3, KW 76904, 2s. 8d. per piece. 4, A 29207, 13s. 11d. per piece. 5, A 25081, 8s. 10d. per piece.



Four fabrics from Primavera. 1, Maxwell, at 29s. 8d. per yard (36 in. wide). 2, Rustica, 14s. per yard. 3 and 4, Folklore, showing two of a range of colour combinations, 17s. 2d. per yard for light colours, 18s. 8d. per yard for dark colours.

#### FURNISHING FABRICS

Mourne Textiles have produced an outstanding weave for furnishing. Maxwell, 1, in black, white and yellow, is on sale at Primavera. The strong woven texture is given scale by a vertical stripe, which succeeds in being simple without naïveté.

A well varied range of striped cottons from Holland is also on sale at Primavera and individual materials vary widely in character. Rustica, 2, in black and white, has a simple cotton thread texture. Folklore, 3, has a warm flannelette finish. It comes in a range of good colours from the downright black and white to gentle yellows and greys, 4. There are more complicated arrangements of stripes in red, white and blue, and other gay colours at similar prices.

D.R.

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Luncheon			
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Supper and Sandwiches			
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A black and white photograph of the interior of the Dover Car Ferry Terminal. The space is a long, open hall with a high ceiling. A large, circular, recessed light fixture is visible in the foreground. The floor is polished and reflects the light. On the right side, there are several tall, cylindrical columns supporting the ceiling. In the background, there are more columns and what appears to be a service counter or reception area. The overall atmosphere is modern and spacious.

Interior of Dover  
Car Ferry Terminal  
finished in Nulon.

Photographed by courtesy of  
Dover Harbour Board  
Architects: J. M. Wilson, H. C.  
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### 3 TECHNIQUES

## ARCHITECT/MANUFACTURER CO-OPERATION III

by Noel Moffett

*Most of the examples of 'development work' carried out between architects and manufacturers during these first ten post-war years have conformed to a certain pattern of initiative. Architects (mostly in public employment) with a large programme of work in front of them have approached individual manufacturers with a demand for a product or a range of products which are to be specially designed to suit their programme. This month we publish the first instalment of a case history which shows a different pattern. Here, in the case of 'Arcon,' an architect (the late Edric Neel) with no programme before him takes the initiative in persuading a group of big and diverse manufacturers that the needs of the moment require that they should work together. This group then instructs its architect consultants to investigate the concerted use of their products in building.*

*This investigation is usually centred round the design of a specific marketable product, usually something large such as a prefabricated house or a standard tropical roofing system, but it also comprises long-term research into the fundamentals of building with factory-made components. In this first article we recount work done in the end of war period when housing gave the spur to technical development.*

The word ARCON is a significant one. It symbolizes the very close collaboration between architect and manufacturer which is characteristic of prefabrication. Originally the word meant 'architectural consultants'; today it is the name of a group of manufacturers—the Arcon Group—who collaborate with their two consultants (Rodney Thomas and A. M. Gear) in the design, manufacture and marketing of prefabricated buildings and building components.

The Group was founded in 1943 by an architect—the late Edric Neel—whose objective was 'to show that prefabrication was not only a practical and economic way of building, but also a profitable activity.' It is a tribute to Neel, and to his architect and industrialist colleagues, that before he died 10 years later at the age of 37 his objective had been achieved.

Today members of the Arcon Group mass-produce a great variety of products, all of them architect-designed, and export them to all parts of the world. The members of the Group are:

Imperial Chemical Industries Ltd.  
Stewarts & Lloyds Ltd.  
Taylor Woodrow Ltd.  
United Steel Companies Ltd.  
Williams & Williams Ltd.

An advisory committee, composed of the two consultant architects and two representatives of each of the member companies, decides Group policy, reviews progress and controls their joint activities. Thomas and Gear, in collaboration with the technicians of member companies, design everything manufactured by the Group, down to the smallest detail, and carry out a great deal of research work—short-term and long-term—sometimes at the direct request of a Group member and sometimes on their own initiative. Although the architects work closely together, each has his own office, Gear in Manchester Square and Thomas in Chelsea, and each his private practice. Gear employs 40

qualified men—30 architects and 5 structural engineers, as well as several specialists—in costing, plan registry, timber detailing and curtain walling. His work for the Group is divided into four categories: research, development of existing designs, special jobs and technical service. Thomas's office is smaller, and his time is spent chiefly on the design of special structures and on long-term research. He has a fully equipped workshop where he can make full-size mock-ups or accurate scale-models of his designs in wood or metal.

#### origins of the group

In 1942 Donald Gibson, City Architect of Coventry, was invited by Radiation Ltd. to design for them a totally prefabricated permanent house. Gibson asked Neel, then a young man of 26, to come to Coventry to help him with the designs. Close collaboration was obviously necessary between the designers and the manufacturers of the materials and component parts of the proposed house. It soon became apparent that a Local Authority such as the City of Coventry could not show undue favour towards any one manufacturer, as ultimately open tenders must be called for. Also it was unreasonable to suppose that one manufacturer should put his knowledge, experience and ideas at the disposal of the designer, only to find that, at a later date, these ideas would be incorporated in the design of components for the manufacture of which the trade was being asked to tender.

Experience with Gibson at Coventry thus led Neel to the realization that the problems of prefabrication could only be tackled satisfactorily by a group of firms whose joint interests covered the whole range of the major materials likely to be used in prefabrication.

During the six months that Neel spent at Coventry, Rodney Thomas and Raglan Squire were in practice

together in London. Knowing them to be sympathetic to his ideas, Neel got in touch with them. As soon as he had left Coventry the three architects formed a new partnership and opened an office in Hallam Street in April, 1943. War-time conditions, shortage of most building materials, virtual stoppage of all normal building work and difficulty in obtaining licences for the use of traditional materials, all encouraged the new partnership—who took the name of 'Arcon'—to concentrate on the development of their ideas about prefabrication. It is perhaps worthy of note that the first Arcon organization contained no business men or manufacturers, although it was not long before a group of manufacturers was formed to develop prefabrication ideas and to look for a means of using their materials in the immediate post-war era. This group, later to be called 'the Arcon Group,' consisted of ICI, Stewarts & Lloyds and Turners Asbestos Cement Co. Ltd.

The Arcon architects realized from the beginning that two things were of vital importance for the successful development of their ideas: first, that the architect must co-operate directly with the manufacturer of certain materials; second, that this co-operation must be at the highest level, that is with company directors and managers. Arcon decided that for them the important materials were timber, concrete, plastics, glass, paint, cast and sheet aluminium, and tubular, rolled and sheet steel.

Neel had already worked individually with some of the firms manufacturing these materials and knew their directors personally. Contact was re-established between them and the manufacturers became interested in the work of the architects and encouraged them to carry out research into prefabrication, both of complete houses and of component parts, employing wherever possible the particular materials manufactured by their firms. Arcon was invited to act as secretariat and

designers to the Group of manufacturers, and it was agreed that they were primarily concerned with the prefabrication of permanent buildings.

#### the permanent house

At the request of Coventry's City Architect, and with Stewarts & Lloyds as sponsors, the Arcon office now prepared a detailed design for a pair of permanent houses, and worked in close collaboration with Stewarts & Lloyds (tubular steel framing), Turners Asbestos and ICI (paint and synthetic materials of various kinds). In collaboration with Gibson and these manufacturers the houses were designed using the following materials: tubular steel framework (with metal trays), precast concrete blocks hung on the steel frame as ground floor cladding, corrugated asbestos as roof covering and first-floor cladding, and metal windows. Early in 1945 a pair of these houses was erected at Stewarts & Lloyds works in Corby, 1.

#### kitchen-bathroom service unit

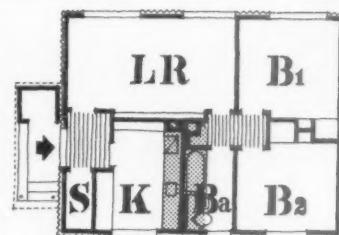
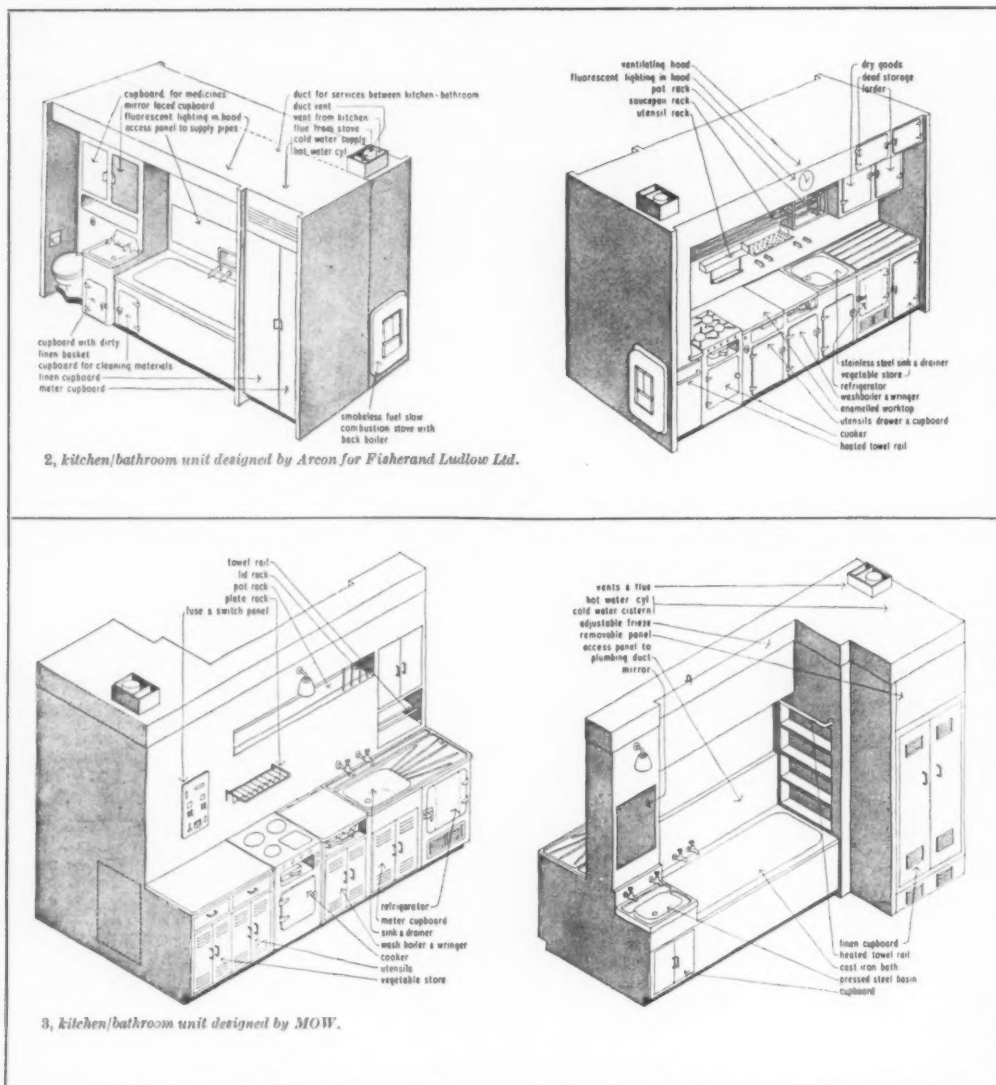
The second Arcon project, designed at the same time as the Corby houses, was a kitchen-bathroom service unit for Fisher & Ludlow Ltd., a Birmingham engineering firm whose chief interest was the manufacture of car bodies for the motor industry. The idea, originally proposed by the American architect Buckminster Fuller, was simply to plan kitchen and bathroom so that all the fittings of the kitchen (sink, cooker, wash boiler and refrigerator) were placed back to back with the service fittings of the bathroom



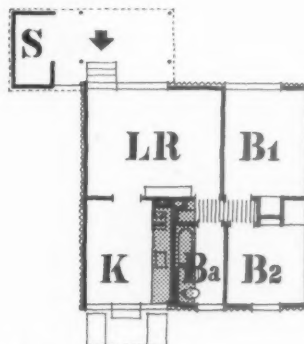
1, permanent houses erected at Corby

(bath, lavatory basin and water closet), 2. This compact grouping made it possible to incorporate all these fittings in one transportable unit. Gear now joined the Arcon office as an assistant, and worked particularly with Rodney Thomas on research work of various kinds. Later Gear was to become a partner, and he and Thomas, while remaining in the Arcon partnership, opened a second office in Chelsea so as to concentrate on research.

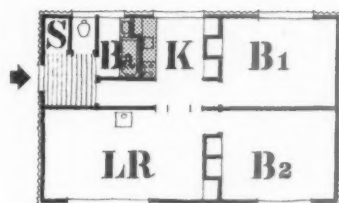
With the help of Fisher & Ludlow, Arcon got in touch with several car manufacturers and attempted to interest them in their designs, with the idea of persuading them to apply their excellent technique and long years of experience of total prefabrication and assembly line methods to the manufacture of the kitchen-bathroom unit, and later on of other house components. But the car firms were not interested. They considered car technique out of place in a house. The service



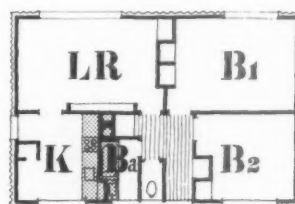
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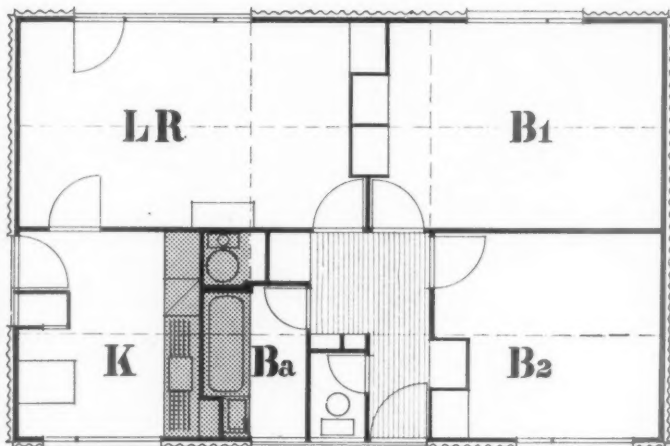
Mark II



Mark III



Mark IV



Mark V

4, Evolution of the plan of the single storey demountable house. Mark I: drawingboard design only. Mark II: prototype erected at Tate Gallery. Mark III: plan modified to meet MOW requirements. Mark IV: plan again modified to enable occupants to pass from both bedrooms to bathroom without passing through living-room: two prototypes built at Tate Gallery. Mark V: the design which finally went into production.

unit was put on exhibition by Radiation Ltd. in their gas show-rooms up and down the country, but was not popular and was never mass-produced. It is interesting to note, however, that the official Ministry of Works unit, 8, very soon to play an important part in so many of the Government's temporary house plans, appeared at about the same time, incorporating very similar ideas and detail design.

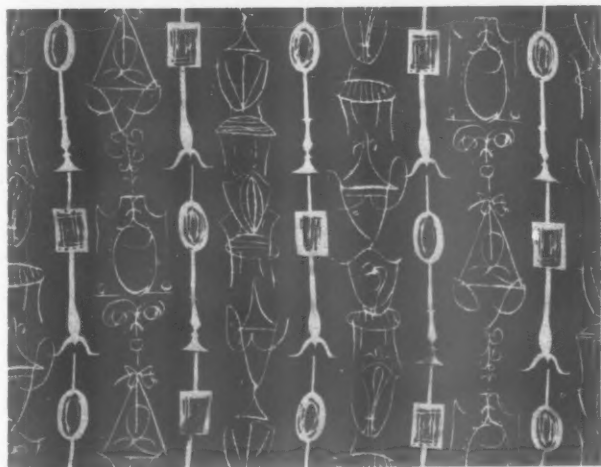
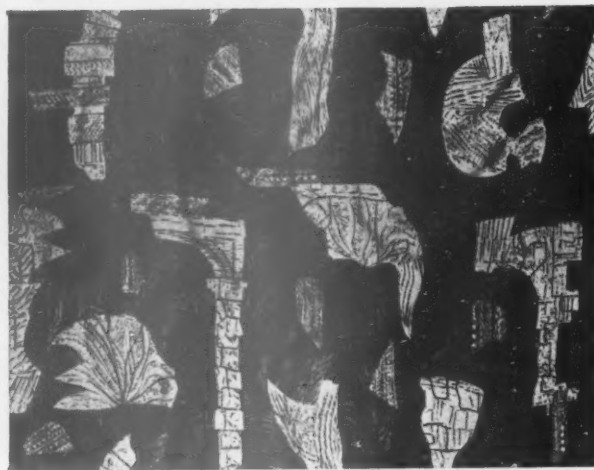
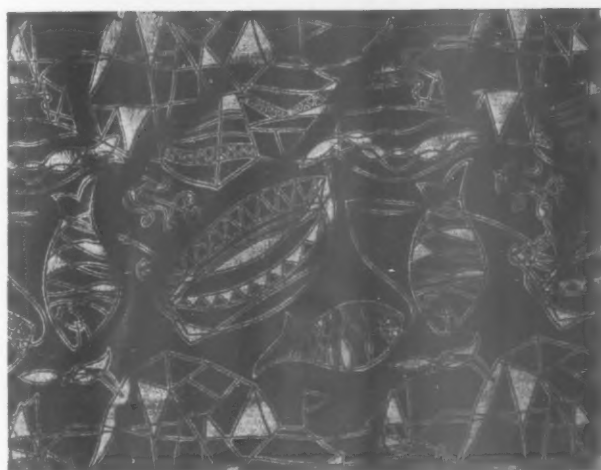
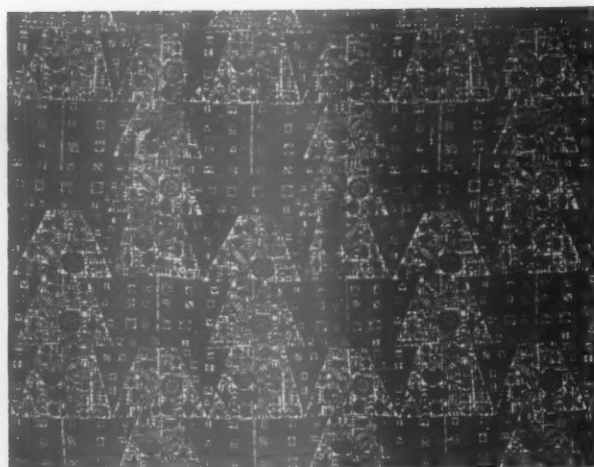
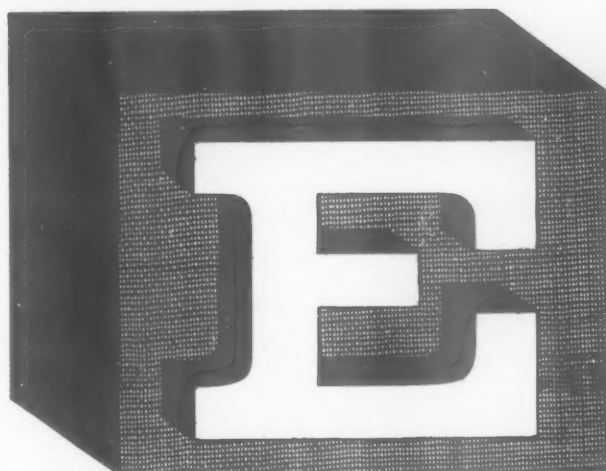
#### demountable single-storey house

To illustrate some of their research work, and to demonstrate the use of their kitchen-bathroom service unit, Arcon designed a demountable single-storey house, later to become known as 'Mark I', and of importance also because it was the first plan of the well-known Arcon Mark V temporary house, soon to be erected in large numbers all over the country. The architects' plans and ideas were examined very thoroughly by the Group members, and, after criticism and discussion concerning design, materials, construction technique and cost, a second plan was evolved and given the name 'Mark II.' This house had circular concrete pile foundations supporting a steel channel ground floor framework, stressed skin plywood floors, tubular metal wall and roof framing, double asbestos sheeting as wall cladding

(with pressed metal trim), metal windows, and asbestos roof sheeting and gutters. The architects considered that the use of pile foundations was a big step forward in design, as it meant that the house could be rapidly and efficiently erected even on the most difficult site.

At this stage a large firm of building contractors, Taylor Woodrow, joined the Group, chiefly to advise on erection problems. This firm was destined to play a major role in the activities of the Group.

In designing these two houses the Arcon office had carried out a vast amount of research work and had produced several hundred detail drawings. In the spring of 1944 the partners felt that their labour ought to be rewarded in some definite way. The Prime Minister and Lord Portal, Minister of Works, had already spoken publicly of the desirability of erecting temporary prefabricated houses of some kind to relieve the housing shortage. In March Neel, on behalf of Arcon and with an eye for business, wrote to Lord Portal suggesting that total prefabrication on a large scale was the inevitable solution to the housing problem, and that the acute steel shortage meant that the Ministry's steel house—popularly known as the Portal house—could not be manufactured in the large numbers



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*The fabrics (reading from the top) are called 'Xanadu', 'Fisherman's tale' (left), 'Threnody' (right), 'Hepplewhite'.*

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The Royal Liver Building in Liverpool was opened in 1911 and has since become one of the best-known buildings in the world. The towers contain the largest clock in England and are surmounted by Liver Birds no less than 18 feet high. An oil-fired heating system, serving all 17 floors, was installed in 1954 by Richard Crittall & Company, under the direction of Mr. Stewart McLauchlan, F.R.I.B.A.

## AN ENGINEER'S DREAM

### *Oil-fired heating installation in Royal Liver Building*

**A**FTER THE LAST WAR the Committee of Management of The Royal Liver Friendly Society decided to modernise the heating system in the famous Royal Liver Building. The Committee considered various equipment of the most modern design, giving special attention to the need for fuel conservation, minimisation of atmospheric pollution, and safety in operation. They chose an oil-fired system, in which the heating medium was high-temperature hot water.

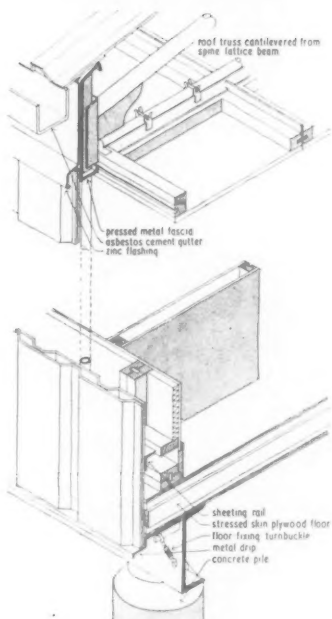
The new installation, described as "one of which engineers dream", was completed in 1954. It distributes heat efficiently and economically through all 17 floors of this huge building. The tem-

perature is thermostatically controlled, and only the simplest maintenance is required. The use of oil fuel also eliminates the difficulty of obtaining solid fuel of the correct grade and makes for greatly improved cleanliness. Furthermore, it reduces storage problems.

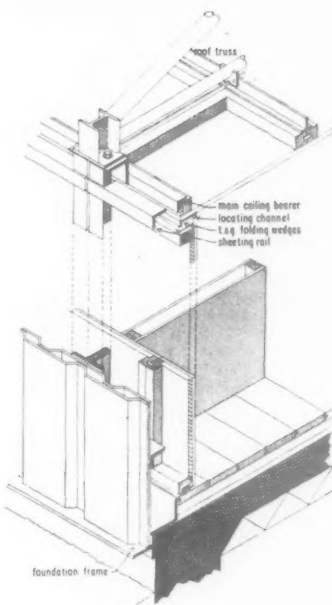
There are two fully-insulated storage tanks, in each of which the oil fuel is heated to the required temperature and degree of viscosity. From these tanks the fuel is distributed mechanically to the burners. All the attendant has to do to ignite the burners is to press a push-button on a control panel. Various safety devices have been incorporated to ensure that ignition takes place only when con-

ditions are completely suitable, and to stop the flow of oil immediately should any untoward incident occur.

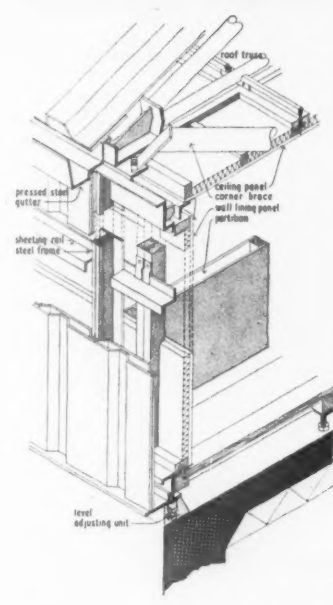
Oil-fired space and water heating is now in use in many public buildings, from office blocks to factories, schools and hospitals—not to mention a good number of largish private houses. If you are designing or modifying any premises of this nature it may well be worth your while to make provision for oil-firing. For any detailed information which you may require do not hesitate to get in touch with Shell-Mex and B.P. Ltd., Fuel Oil Dept. 20G, Shell-Mex House, Strand, London, W.C.2.



5, The Mark II prototype. Note the concrete pile foundations and the stressed plywood floor. This may be described as the architects' version, i.e. before MOW requirements and the detailed needs of mass production have been taken into account.



6, One of the Mark IV prototypes (the eaves have been omitted to show truss detail). Note the substitution of a concrete raft and traditional t. and g. boarding.



7, Mark V: the design as finally modified for mass production. Note the inclusion of screw jacks to allow levelling on the site.

required. Lord Portal replied asking if Neel and his associates had any experience of designing prefabricated houses using a minimum of steel. Neel invited him to inspect their designs and detailed proposals. Portal visited their office and authorized the erection of a prototype of the Mark II house on a site at the Tate Gallery—a site used by MOW (through their Directorate of Experimental Building Development) for the erection of experimental buildings of various kinds. It is perhaps significant to note in passing that this Directorate had been recently formed by Lord Portal after discussions with some of the industrialists associated with the Arcon venture. Without this Directorate licences for experimental building work and for the necessary materials could not have been obtained. Erection of the prototype house began on July 4, and was inspected by the Minister a fortnight later. The general construction technique was approved, but the plan and the stressed plywood suspended floor were not considered satisfactory.

The Ministry at that time insisted that the plans of all types of temporary houses should conform exactly to that of their own steel house. Arcon now prepared their Mark III plan to satisfy the Ministry. They were unanimous in disliking the plan, chiefly because they considered that it was poor planning when someone wishing to go from a

bedroom to the bathroom was obliged to pass through the living room. A revised plan was produced showing how this awkwardness could be overcome by a rearrangement of the rooms, and without increasing the size of the house. Portal and his advisers agreed to the new plan, known as Mark IV. Detailed and accurate costs were worked out, and, at the request of the Ministry, a second prototype Mark IV was erected at the Tate Gallery site alongside the three other types of temporary house sanctioned by the Ministry—the Pressed Steel, the Tarran and the Uni-Seco.

After inspection by H.M. Ministers and by members of the House of Commons, Local Authorities' representatives visited the site and selected the type of house they wished to be erected in their localities. By October the Local Authorities' requirements were sorted and collated by the Ministry, and official instructions were given to proceed with the production of 86,000 Arcon temporary houses.

Structurally Mark IV was somewhat different from Mark II: the suspended floor and pile foundations had been replaced by a more conventional tongued and grooved boarded floor on wood joists on a concrete slab foundation, the number of tubular steel framing members was reduced, steel T columns introduced and structural details generally

simplified. Levelling screw-jacks built into the concrete slab ensured the accurate installation of the floor panels and reduced their span.

The placing of this very large order was, of course, a most exciting event in the life of the young Arcon partnership; but their joy was tempered by difficulty and frustration. Very soon MOW requirements, particularly relating to the size of the foundation slab and the standard fittings to be incorporated in the design, were made known to them. Eventually, partly to satisfy these requirements and partly from experience, every component of the house—390 of them—had to be redesigned.

Mark IV thus became Mark V.

In this development suitability for machine production had been the dominant consideration. At least one of the partners considered that aesthetics had been ignored, and apart from this the architects' judgment had been set aside in a number of matters affecting planning. The large living-room window, which was an important feature of the design, had to be omitted because it was thought that children would break the glass. Lord Portal insisted on the entrance being placed in the centre of the house instead of at one end as planned. For economy reasons, the entrance step (cost about 5s.) and the canopy over the living-room window (cost about 15s.) were subsequently omitted.

#### method of working

All this entailed more months of concentrated work. To cope with it Arcon had moved their office from Hallam Street to Piccadilly and increased their staff, which very soon numbered 60 and included, as well as architects and structural engineers, several production engineers, a 'windows expert' from Williams & Williams, and an 'asbestos expert' from Turners. 5,000 drawings were prepared at high speed and under chaotic conditions. The work, however, was interesting and often exciting. Sir Hugh Beaver, Director General MOW, kept in close touch with the office, encouraged, coaxed and coerced them, and later solved difficult man-power problems as they arose. Many of the architects slept in the office and worked day and night. The plans were complete in February, 1945, and a pilot run of 100 houses was erected in March—50 on a steeply sloping site at Croydon and 50 on a level site at Crayford.

As has been pointed out earlier in this article, Arcon considered that they were primarily concerned with the prefabrication of permanent buildings. They nevertheless welcomed participation in the Government's temporary house programme for four main reasons: first, the very large number of Arcon houses ordered would enable full factory-production methods to

be employed; second, the architects would have the opportunity to design, for Mark V, many details which could later be developed and used on other jobs, e.g., 'cover technique' details such as electric power socket outlet; third, the relationship between architect, manufacturer, marketing agent and MOW could be developed and tested; fourth, the Arcon consultant architects could develop their own design organization. Actually, both the architect-manufacturer relationship and the pattern of development (research—design—prototype—pilot run—bulk production) which were established at this time became the standard for all Arcon ventures.

While the architects were attempting to finalize the design of the Mark V house so that preparations for component production could be put in hand, the relationship between them, the Arcon Group and the Ministry was clarified. MOW agreed to pay Arcon's expenses; they were to place, at their discretion, all orders for components, i.e., not only with members of the manufacturing Group, and the completed houses were to be handed over by them to the Local Authorities who had asked for them; at the suggestion of the Group, they appointed Taylor Woodrow as managing contractors responsible for transport, storage and production phasing, and for the training of site erectors. Thus Taylor

Woodrow began their liaison work, which they were to continue without interruption in connection with all Arcon's major activities, with the exception of work on components.

In 1945, soon after work began on the drawings for the Mark V house, closer liaison was also established between the architects and the senior members of the Group who guaranteed Arcon's development budget, for three years, to enable them to be free of financial worries.

It is doubtful whether Arcon realized at this time the size of the task they had undertaken. It was not only a question of sitting at a drawing-board and producing full-size detail drawings of 390 components. Before the design of any one component could be finalized it was necessary to agree production methods with individual manufacturers or, in some cases, with manufacturers' trade associations. Manufacturers of raw or semi-finished materials had also to be consulted. Drawing work, discussions and revision of drawings proceeded from October to February, when the design was finally agreed by all concerned and drawings issued for production. Work on the preparation of specifications had proceeded in the same manner.

In a factory-produced house every component is related to other components as regards fit and assembly

sequence, as for a motor car. Therefore, as well as the staff responsible for preparing component drawings and specifications, Arcon employed another group of architects and engineers whose sole concern was to report exactly what effect alterations to one component would have upon the erection sequence and upon other components.

This reporting process was continuous. At every discussion with the manufacturers of components or sub-components someone would suggest another and probably a better way of doing the job. The manufacturers, very occupied with their own affairs, expected Arcon to say at once whether or not their proposed improvements could be adopted. Inevitably Arcon could not give a direct answer until their staff had checked and reported. Later, when production began and Mark V houses were being erected in large numbers, the value of this careful checking was fully appreciated.

The character and scale of the organization built up by the Arcon office and Taylor Woodrow can best be appreciated when it is realized that the Mark V house consisted of about 2,500 parts which were made by 145 different manufacturers. Each part, when designed and specified by Arcon, had to be approved by the Ministry of Works. Suitable manufacturers had to be

found, and contracts arranged between them and the Ministry. During manufacture each part had to be inspected and tested, and after manufacture transported to storage depots and later on to the site. In the background a mass of paper-work made it possible to keep track of all components, and to watch carefully the progress of the job.

The pilot run of 100 houses was erected several months in advance of bulk production, so as to test the behaviour of what was really an entirely new method of construction and to enable the simplification of erection methods, storage and transport to be studied. Mistakes in design became apparent, and details were redesigned for bulk production. Taylor Woodrow were able to shoot their training films and organize their transport. Theoretical calculations on the deflection of steelwork were confirmed by field tests. The component manufacturers' requests for modifications were reduced in number because they acquired a better understanding of the design as a whole.

Thus the complete pattern of development and erection of the Arcon temporary house was as follows:

Research—design—criticism—revised design—prototype—pilot run—final design—bulk production—storage—distribution—erection.

## 4 THE INDUSTRY

### MOD-X STRUCTURES

For some time architect opinion on the subject of prefabrication has been turning away from the idea of prefabricating whole buildings and towards the idea of prefabricating components. The system put forward by Mod-X Structures, Ltd. (Architect: D. Dex Harrison) is in line with these thoughts and results in buildings which have a very good architectural quality. The alphabet of this system is well set out in a new brochure.

The parts are designed to the 40-inch module and are adaptable to every form of asymmetrical planning, with panels available for five different roof angles. The steel frame can be used for building up to three storeys, and parts are obtainable in a number of finishes, ranging from simple weatherboarding to aluminium curtain wall panels with glazing or other infilling. Components can be framing elements (columns, beams and connectors), cladding elements designed to fit the frame, or even stressed skin elements having both sheathing and load-bearing functions. The system is supplied for erection by semi-

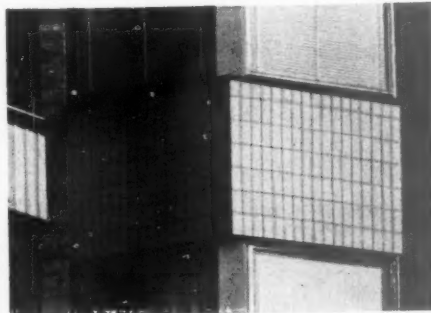
skilled labour and is readily demountable, with a recovery value of 95 per cent.

An interesting aspect of this particular service is that Mod-X Structures aim to transport as little as possible. It is an idea that they are marketing. When structures are to be built in distant countries they arrange to manufacture the parts as close to the site as possible. This is a very practical application of the idea of regionalism in building and affords a welcome departure in the history of prefabrication. *Mod-X Structures, Ltd., 20, Lowndes Street, London, S.W.1 (Belgravia 3266-8).*

### MORE TILES

Continuing the exploration of continental tile yards (Trade Notes AR, April, 1955) we find Dennis M. Williams, Ltd., are now marketing IFÖ vitrified ceramic floor and mosaic tiles from A.B. Iföverken, Bromölla, Sweden.

The range includes 18 colours of glazed tiles and 18 colours of matt tiles with usual skirting and moulded accessories. Tiles are obtainable 4 inches square by  $\frac{3}{8}$  inches, 6 inches square by  $\frac{1}{8}$  inches, and 4  $\frac{1}{2}$



inches by 8  $\frac{1}{2}$  inches by  $\frac{1}{8}$  inches, with mosaic tiles in the same colours supplied ready mounted on paper in units covering an area roughly 2  $\frac{1}{2}$  square feet.

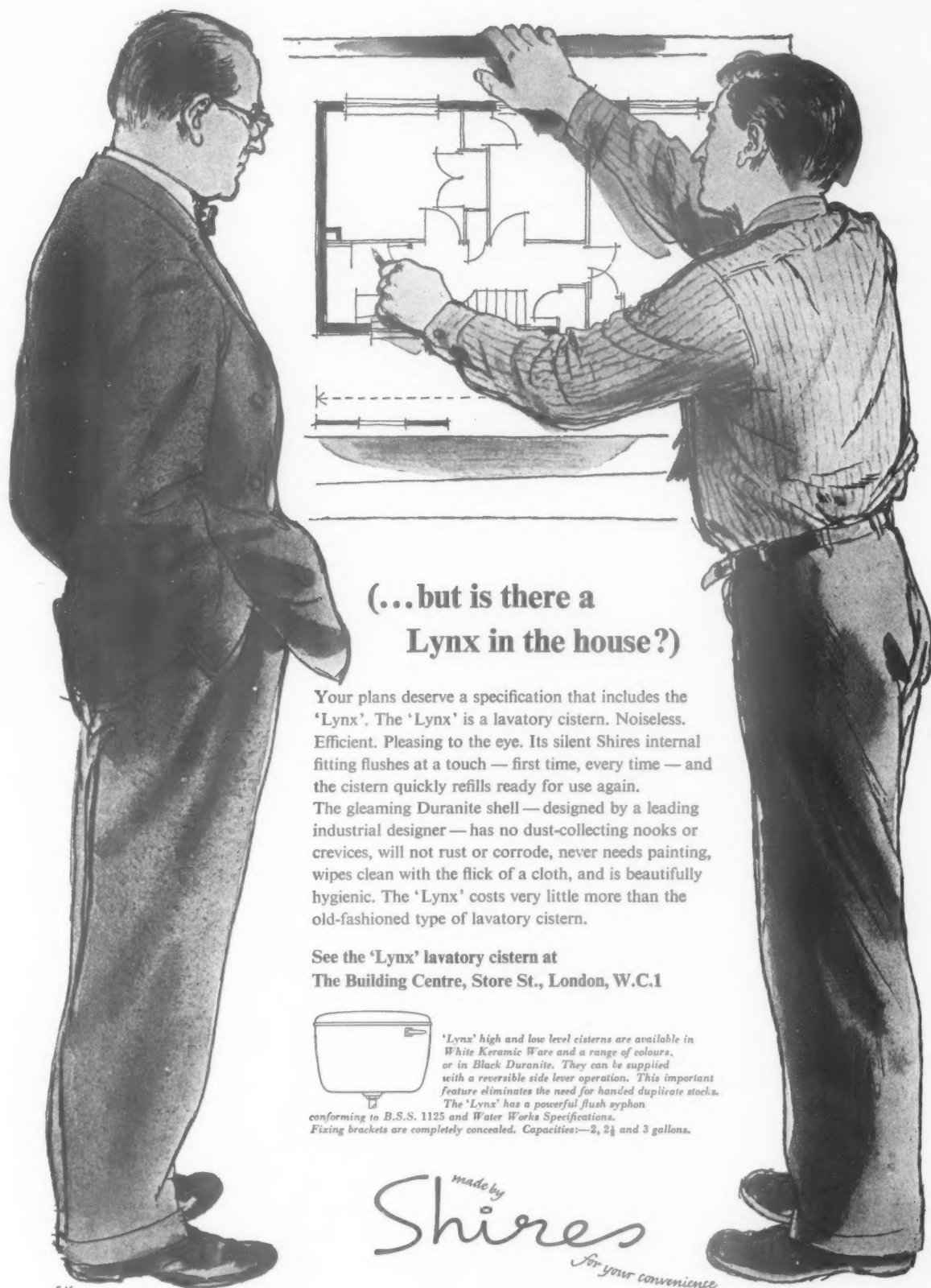
Prices vary from 45s. 6d. per yard super for matt mosaic tiles to 32s. per yard super for 4 inches square glazed floor tiles.

The matt finish tiles are of a type rarely seen in this country, and the catalogue itself is a fine example of presentation. Our illustration shows the new students' Hall of Residence at Lund, faced with IFÖ 4  $\frac{1}{2}$  inches by 8  $\frac{1}{2}$  inches white vitreous floor tiles. *Dennis M. Williams, Ltd., 12, Kingston Hill, Kingston-upon-Thames, Surrey.*

### SPACE HEATING SYSTEM

One of the most recent solutions to the problem of space heating is a simple tubular heater, consisting of a spiralled nickel-chrome element wire in a tough heat resisting glass tube, installed at an approxi-

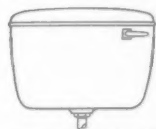




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See the 'Lynx' lavatory cistern at  
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conforming to B.S.S. 1125 and Water Works Specifications.  
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'Lynx' high and low level cisterns are available in White Ceramic Ware and a range of colours, or in Black Duranite. They can be supplied with a reversible side lever operation. This important feature eliminates the need for handed duplicate stocks. The 'Lynx' has a powerful flush syphon

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Division B Shires & Co. (London) Ltd., Greenbottom Works, Guiseley, Yorks.  
(Factories also at London and Stoke). Shires (Ireland) Ltd., Stannaway Drive, Crumlin, Dublin.



mate cost of 10s. to 12s. per foot run. Heat control equipment is extra and continuous lengths are found to be more economical, as wiring between short sections rapidly increases initial cost. The system may be fixed in almost any position, with the tube mitred or bent, and secured in spring clips. The element operates at black heat, and loading can be varied from 5 feet at 280 watts per foot to about 80 feet at 25 watts per foot. Its versatility is demonstrated by successful application to the underside of an armour plate-glass table on the one hand and as a heater to extensive greenhouses on the other. As a rough guide, the temperature of a room 12 feet by 12 feet can be maintained with an installation consuming one unit per hour.

The illustration shows an installation running round the skirting board of a bedroom. *The A. & R. Electric Co. Ltd., 1, Bruce Avenue, Shepperton, Middlesex.*

#### PRE-CAST WALLING UNITS

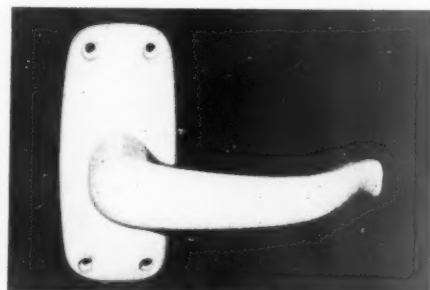
A further technical development of the Hertfordshire Schools Programme is the 'Superpanel', a plaster faced asbestos cement cored wall unit. The panels, normally 2-foot wide, may be up to 10-foot high and are designed as internal wall panels. They consist of a corrugated asbestos cement core, with a skin of gypsum plaster, the two materials bonded by aluminium cleats attached to the corrugated sheeting and chemically bonded by a special hardener mixed with the plaster. The panels may be site or factory manufactured, hardening sufficiently for use in about 15 minutes. Joints can be simply covered with scrim cloth in the case of a wallpaper finish, or filled with gypsum plaster to give an unbroken surface. The hollow core may be used for any services such as cables or wires, and switch boxes may be cast in the face of the panel during fabrication.

The system can be used for either load-

bearing or non-load-bearing walls and is made in two thicknesses, 2½ inches and 3 inches. For load-bearing walls the 3-inch units are used, and carry up to 4 tons per foot run. Supply and erection is carried out either by the patentees, Petradene, Ltd., or their agents, and the consultant architects are Brunton, Baden, Hellard and Partners. *Petradene, Ltd., 23-39, Bendon Valley, Garratt Lane, Wandsworth, London, S.W.18.*

#### DOOR FURNITURE

We illustrate one example from a new range of plastic door furniture which is being marketed by Lacrinoid Products, Ltd. Designed by R. Hooper, MSIA, the chief point to notice is the inward twist at

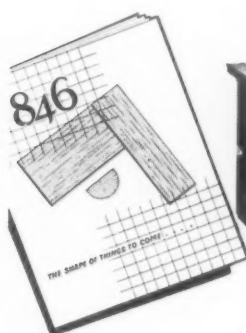


[continued on page 208]

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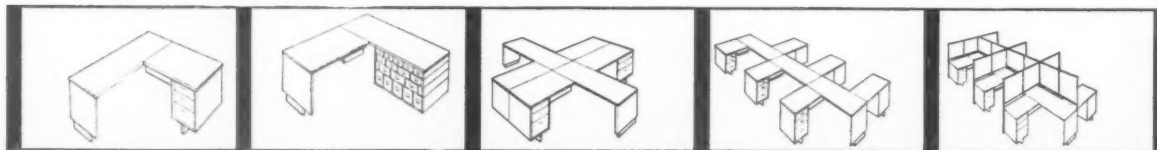
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## NATURAL MATERIALS— MINIMUM MAINTENANCE

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Architects Yorke, Rosenberg and Mardall selected Natural Materials for Causeway Green Primary School to conserve maintenance costs and provide the theme for interior decoration. The Assembly Hall floor, laid by Vigers Bros. in 1" nom. Beech blocks, is typical. The inherent qualities of the hardwood floor are very suitable for the contemporary school hall. Children to-day do work, run, dance, act and sit on the floor. Of necessity the surface must be durable, resilient, warm—qualities possessed by hardwood floors to a marked degree. Add the considerable aesthetic appeal to low maintenance costs and we have the complete answer to floors for Assembly and Dining Halls, Gym, Workshop or Lab.

---

*School at Oldbury, Worcester. Architects: Yorke, Rosenberg and Mardall in association with F. W. B. Yorke and Barker.*

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**HARDWOOD FLOORS**  
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continued from page 206]

the end of the lever which guards against the catching of clothes.

In addition to the example shown (which is designed for a mortice latch) there is a lock set with a keyhole incorporated in the plate. The range is made in black and brown (urea formaldehyde) and in ivory (phenol formaldehyde). *Lacrinoid Products, Ltd., Gidea Park, Essex.*

#### TIMBER IMPREGNATION

Although creosote is a tried and tested preservative of 100 years standing, its principal drawback has been the problem of painting. To overcome this, several water-borne preservatives have appeared over the last 25 years, and Hickson's Timber Impregnation Co. Ltd. have two useful products in this field: 'Tanalith,' as a general deterrent to decay, dry rot and insect attack; 'Pyrolith,' as a flame retardant. These two have no damaging effect upon the timber, save leaving a slightly yellow stain, and the wood may be painted, glued or worked in the normal manner. Plywood and some hardboards can also be treated, which in all cases is more successful if carried out under pressure.

With much tropical building now being

manufactured in this country it should be added that 'Tanalised' timbers have proved resistant to termites, and that 'Tanalith' oil-treated railway sleepers have outlived Burma teak used under similar conditions. Impregnation costs about £11 per standard, depending on cartage, bulk orders, etc.; 'Pyrolith' fire proofing costs about £33 per standard.

'Tanalised' timbers have been recently specified in LCC housing, and in these days of ultra-lightweight sections the small extra cost would seem a worth-while safeguard.

*Hickson's Timber Impregnation Co. (G.B.) Ltd., Ings Lane, Castleford, Yorks.*

#### CONTRACTORS etc

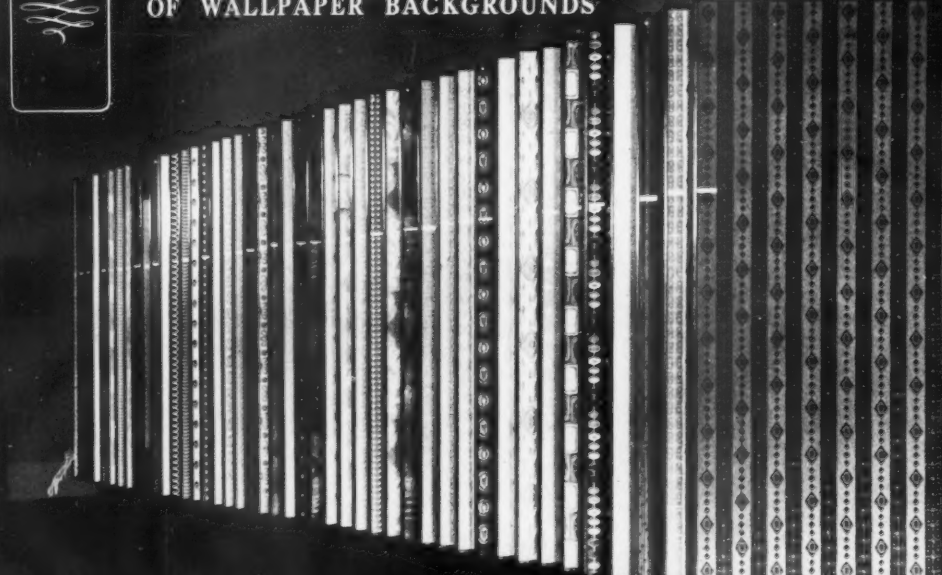
**School at Paddington.** *Architect:* Drake & Lasdun. *Architect-in-Charge:* John Shaw. *Assistant Architects:* Kris Kossak and Bernard Kreeger. *General contractors:* Allen Fairhead & Sons. *Sub-contractors:* precast stone faced units: Wates, Ltd. Metal windows and doors and water tank screen: Williams & Williams, Ltd. Facing bricks, external: Dunbrik, Ltd. Facing bricks, internal: The Sevenoaks Brick Works. Asphalt roofing: Permanite, Ltd. Water steel framing: T. W. Palmer & Co. Glazing: Faulkner, Greene & Co.

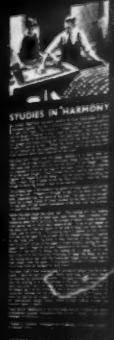
*Glass domelights:* Pilkington Bros. *Metal balustrades and coat fittings:* Clark, Hunt & Co. *Window ventilators:* Greenwoods & Airvac Ventilating Co. *Fencing:* Durafencing, Ltd. *Tarmacadam:* The Home Counties Tarmacadam Contracting Co. *Turf planting:* St. Marys Contractors, Ltd. *Heating and water supply:* The Norris Warming Co. *Electrical installation:* Norwest Services. *Metal door frames:* Joseph Sankey & Sons. *Terrazzo w.c. partitions:* The Malacarp Terrazzo Co. *Accotile flooring:* Rowan & Boden, Ltd. *Weyroc floors:* Aladdin Services (London) Ltd. *Floor and wall glazed tiling:* Allan & Cairns, Ltd. *Jointless flooring:* The Marbolith Flooring Co. *Partition blocks:* Broads & Co.; J. J. Bassett & Co. *Sanitary fittings:* Dent & Hellyer, Ltd. *Plumbing:* Richard Whittington & Co. *Flush doors:* Allen Fairhead & Sons. *Ironmongery:* Alfred Roberts, Ltd. *Plastering and granolithic:* J. H. Jenner & Co. *Paint:* Nicholls & Clarke, Ltd. *Painting:* Allen Fairhead & Sons. *External paint on concrete:* Inertol Co. *Kitchen ventilating equipment:* Haywards, Ltd. *Kitchen service lift:* The Hoisting Appliance Co. *Venetian blinds:* S. C. Williams & Co. *Curtain tracks:* Tidmarsh & Sons. *Interior plants and boxes:* Stuart Low Co. *Woven wire shoe boxes:* Painter Bros. *Light fittings:* Hume Atkins & Co.; Falk Stadelmann & Co.; General Electric Co.; Holophane, Ltd. *Applied lettering:* Applied Lettering. *Engraved lettering:* The London Name Plate Manufacturing Co. *Stove in schoolkeeper's house:* John Holding & Sons. *Classroom heaters:* C. A. Dunham & Co. *Radiators:* The Beeston Boiler Co.

**Technical College at Dartford, Kent. County** *Architect:* E. T. Ashley Smith, *Group Leader:* S. H. Garnham Wright. *Assistant Architects:* G. G. Grylls and W. A. Shirbon. *General*  
continued on page 210]

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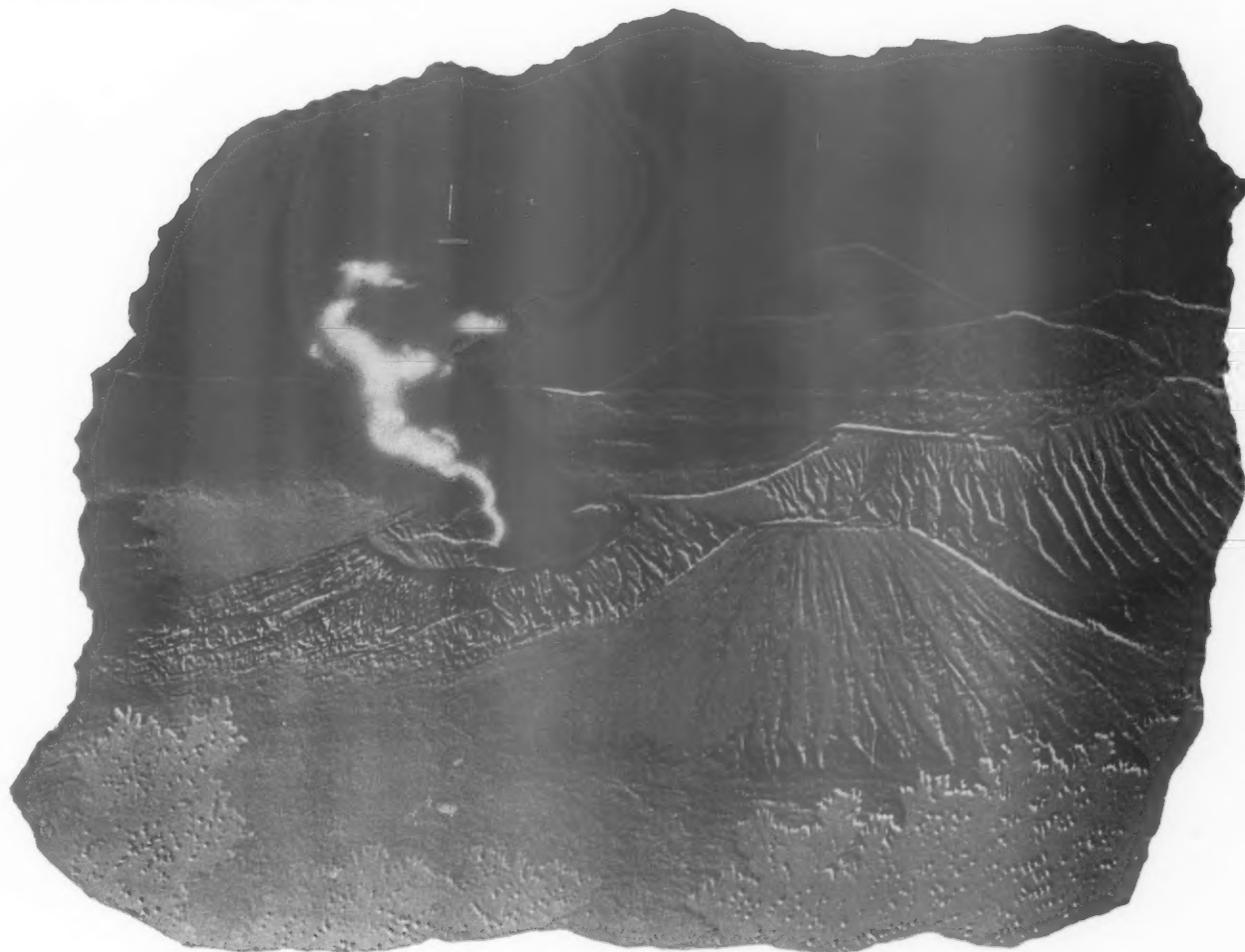




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contractors: William F. Blay, Ltd. Sub-contractors: mechanical engineering: G. N. Haden & Sons. Electrical engineering: C. W. Gosling, Ltd. Structural steelwork: United Steel Structural Co. Concrete glazing frames: Lenscrete, Ltd. Fireproof ceiling blocks and stanchion cladding: Meta-Mica, Ltd. External and internal screen wall units: Holoplast, Ltd. Electric passenger lifts: Evans Lifts, Ltd. Prestressed precast concrete beams and precast concrete floor slabs: Ferronconcrete (Lancashire) Ltd. Felt roofing: Macartney, Ltd. Reflex flooring: L. Fishburn. Precast walling blocks, precast concrete window surrounds and paving slabs: Atlas Stone Co. Standard dome light: Pilkington Bros. Sanitary fittings: Teuten-Davis Bennett, Ltd. W.C. cubicle partitions: F. Bradford & Co. W.C. cubicle doors: S. Brand & Co. Plasticork flooring: Whitney-Fairchild, Ltd. Rubber flooring: Veitchi Co. Paint: Screeton Paintmaker, Ltd. Special light fittings (to architects' design): New Era Industries, Ltd. Standard light fittings: Troughton & Young, Ltd.

House at West Mersea, Essex. Architect: Richard Finch. General contractors: Nolan & Perry, Ltd. Sub-contractors: dampcourses: The Ruberoid Co. Asphalt: R.I.W. Protective Products Co. Bricks (Essex stocks): Finnis Ruault & Nicholls, Ltd. Slate hearth: Bow Slate & Enamel Co. Roofing felt: Permanite, Ltd. Flooring and stair-treads: Groom & Daniels & Co. Central heating: Corton & Bergin, Ltd. Boilers: Crane Ltd. Electric light fixtures: Troughton & Young, Ltd. and Falk Stadelmann & Co. Door furniture: Alfred G. Roberts, Ltd. Metal casements: Crittalls Manufacturing Co. Sanitary fittings: Adamsez, Ltd. Sanitary fittings: W. N. Froy & Sons. Metal work: C. H. Brooks, Ltd. Special joinery fittings: W. A. Hills & Sons. Paint: International Paints, Ltd.

Hotel in Coventry. Architects: W. S. Hattrell & Partners; in collaboration with W. J. Witham, Chief Architect, Ind Coope & Allsopp Ltd. General contractors: Sir Robert McAlpine & Sons. Sub-contractors: Dampcourses: Altrinda. Asphalt roofing felt, weatherproofing material: Ragusa Asphalt Paving Co. Bricks: Blockleys Ltd. Stone: C. S. Ormerod Ltd.; Hornton Quarries Ltd. Artificial stone: Empire Stone Co. Structural steel: Somerville Barnard Construction Co.; Steel Decking Roof, D. Anderson & Son. Tiles, tiling: Coventry Tile Co. Special roofings: Ragusa Asphalt Paving Co., Everseal Products Ltd.; Glass (Coventry) Ltd. Patent glazing: Standard Patent Glazing Co. Woodblock flooring: Horsley Smith & Co. (Hayes). Patent flooring: Francis Morton & Co., Korkoid Decorative Floors, Coventry Tile Co. Suspended insulation board ceilings: Peters Contractors. Acoustic tile ceilings: H. W. Cullum & Co. Central heating, gas fitting, boilers, ventilation: Matthew Hall & Co. Electric wiring and fixtures: Troughton & Young Ltd. Stairtreads: Ferodo Ltd. Door furniture: Dryad Metal Works Ltd., James Gibbons Ltd. Casements, window furniture: Stelwin Construction Ltd., James Gibbons Ltd. Telephones: Standard Telephones & Cables Ltd. Roller shutters: Dennison, Kett & Co. Plumbing: J. S. Wright & Co. Refrigeration: J. & E. Hall Ltd. Sanitary fittings: Sorby & Foster. Traps and preformed plumbing units: Econa Modern Products Ltd. Kitchen equipment: Carron Company. Silver grill: Benham & Sons. meteorological instruments: Negretti & Zambra Ltd. Laundry equipment: Manlove, Alliott & Co. Sliding folding screen: Esavian Ltd. Pneumatic tube system: Dart Cash Carrier Co. Sun blinds: London Blinds. Venetian blinds: Ordish & Hall Ltd. Balustrading: Bayliss, Jones & Bayliss Ltd. Pavement lights: J. A. King & Co.

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